



Trevor Rabin and Michael Gough in Edward Albee's new play 'Counting the Ways', which opened last night at the Olivier.

estival Hall

Lazar Berman

by DOMINIC GILL

My rather cautious judgment of the Soviet pianist Lazar Berman after his British debut with the London Symphony Orchestra last week was in some small respects confirmed by his solo recital on Sunday afternoon—and in many other ways wholly refuted.

Perhaps the reservations were, after all, incidental. It is certainly unfair to blame Berman for the devious workings of the publicity machine which follows him, and which none of his making; and it is realistic to blame him for not failing to match its image perfectly. He is without doubt, in his own right—his own, not Richter's or Gilels's—remarkable phenomenon. We heard playing from him yesterday of a quality and high artistry rarely heard anymore; and that, for the moment, quite enough.

His account of Prokofiev's eighth sonata (op. 84), on its

massive, thoroughbredly etched in notation twice seemed to push quite be-

ys, was nearly perfect. There light and shade; it could never yond, every physical limit.

Elizabeth Hall

Maria di Rohan

by ELIZABETH FORBES

Maria di Rohan, Donizetti's former discover of his wife's infidelity, is only averted because she has been whittled down to the basic three characters. A long duet at the end of Act 1, for soprano/tenor duet in the third act, which follows the Paris version aria for Chevreuse that follows, is all dramatically apt as melodic reward.

The title role, written for Eugenie Tadolini, was singing in Paris by Giulia Grisi. Theophile Gautier, most evocative of all theatre critics, took exception to Tadolini. Set at the court of Louis XIII, the action involves two duels: in one, which has taken place before the beginning of the opera, the Duke de Chevreuse killed the Cardinal's nephew; in the second, the Comte de Chalais challenges on Sunday. Lotte McDonald sang with due attention to line in the more pathetic portions of her aria, not knowing that she is cruelly married to Chevreuse. The event Chevreuse fights the condon duell as well, in defence of his wife's honour. A third duel, between Chevreuse and Chalais, when the

in the confrontation with Chevreuse just before the end of the opera.

Chevreuse, a role composed for the great dramatic baritone Giorgio Ronconi, who also sang the part in Paris, is by far the most interesting of the characters. His third act aria, which runs the emotional gamut from distress, pain and sorrow to violence, was splendidly sung by Jonathen Summers, whose rich, vibrant tone, elegant phrasing and strong rhythmic sense all helped to bring Chevreuse to vivid musical life. Della Jones brought fine attack and warm tone to Gondi's music, but the role peters out half way through the opera. Leslie Head conducted the Pro Opera Orchestra and Chorus; he obtained good ensemble but could have allowed the singers more room.

Covent Garden

Gérard Souzay

The distinguished French baritone's voice used to resemble a great Terpsichore, for Bach in "reflective mode" for Beethoven's "In questa tomba oscura" and, among the music of his own countrymen, the darker songs of Faure or Duparc and Ravel's bitter-sweet "Don Quichotte à Dulcinea".

Sad thoughts and slow tempo speeds suited him better on the whole, than carousal, flirtation or rapid patter. With time the velvet viola quality has lost the bloom and narrowed into plangency more like a cot aiglars. But as Souzay's recital on Sunday showed, there is considerable address in the management of what is left. This was not one of the Sunday evenings when one sees the great red curtain rising to reveal the singer's protection. The programme was clearly devised to ensure that the voice would have warmed up in time for the main work—Schumann's "Dichterliebe". Souzay and his ever-admirable accompanist, Dalton Baldwin, gave an intelligent, sensitive reading of the cycle, expectedly short on the supply of warm tones on which one can normally depend from a German baritone, but with insight into Heine's lyrics as well as Schumann's setting of them. There was a happy run from "Am leuchtenden Sommernorgen" up to the final song, which requires more voice than the singer now has to give. Mr. Baldwin reminded us eloquently that there is more than one piano postlude in "Dichterliebe".

Souzay started with two groups of Faure's Lovers of this composer's songs would no doubt have preferred one of the late cycles, but few singers, however experienced, would risk starting cold with "Le Jardin clos" or "L'Horizon chromatique". The selection of early songs was interesting, and for the most part unconventional. The finer superiority of slow and even fast and light was still noticeable when one compares, say "Chant d'amour" with "Sylvie" or "Madoline". Much the same applied to a Poulenç group, where the rarely-heard "Le Divan" and "Jacques Villon" were much more satisfying than the tongue-twisters. Jérôme Leguern, a younger contemporary of Poulenç, contributed for the occasion a new setting of "Come away, Death" from "Twelve Night", an ornamental, non-romantic page, elaborate but pleasing.

V & A

A tonic to the Nation

by WILLIAM PACKER

Just as no one under the age of 30 can be expected to remember much about it, so the one over 30 who was in this country in 1951 is likely to have forgotten the Festival of Britain. Certainly it figured large enough in my own 11-year consciousness—though I never went near the South Bank and took all of it given over instead, to spotlights and obtrusive blue-ware. In the end, it proved to be a success: about one in every three of the entire population visited at least one of the major sites and at the end of the year there was profit enough to confirm the many critics.

The Festival was indeed an extraordinary event, and meant to stand as a symbol of a new-found confidence in ourselves and in the future, and the spirit of an active, united and creative people. It was meant to be fun, a national treat. The idea of its success, therefore, is good, a fascinating prospect. Its nostalgia count is extremely high for a start, and more seriously, the idealism that informed its conception, the political and social controversies that beset it in the years of preparation, its successors, and its belly-flopping failures, its subsequent influences over art and design, for good and ill, all warrant close examination.

The exhibition now at the V. and A. has thus been anticipated with a certain keenness: unfortunately, the event itself proves a sad disappointment, not only in its quiet resounding and glistening account of Linz's arrangement of *Erkönig*, at speed which stretched, and once or twice seemed to push quite beyond the limits of what we have been marvellous octaves, delivered without the least traces of visible effort. Two encores sealed, and confirmed, the programme: a Tchaikovsky Prelude, ravishing in its quiet resounding and glistening account of Linz's arrangement of *Erkönig*, at speed which stretched, and once or twice seemed to push quite beyond the limits of what we have been

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AMERICAN NEWS

Importers lead in car sales gains

By Jay Palmer

NEW YORK, Dec. 6.

HE SALESMAN of new imported cars in the U.S. have, for a second month running, completely outstripped those of domestic car companies. November sales of foreign-made cars in this country rose 28 per cent, compared with a mere 5.6 per cent rise reported collectively by the four U.S. carakers.

However, unlike the sales boom reported by the importers during 1974 and the then severe steel shortages this two-month surge may not necessarily reflect continuing trend. For one thing, the comparable October and November in 1975 was a period of exceptionally weak imported sales, during a strong domestic sales upturn.

What is now very evident is that the importers have been given unexpected help by Ford Motor's production problems within its ranks and subsequently. While Ford's regained strength, which should not take too long, the importers will find themselves back at square one.

Although the importers clearly showed the strongest gains, they were not alone in collecting extra sales from Ford's troubles during November. General Motors, Ford's principal rival, also surged ahead with its sales for the month rising 15.8 per cent. In particular, Mr. Vance believes that the Belgrade con-

Vance anxious for progress on SALT and Middle East

By DAVID BELL

MR. CYRUS VANCE, the incoming Secretary of State, places the highest priority on getting the Strategic Arms Talks (SALT) "out of the doldrums". For the next few months, "At the same time he believes that a re-opening window appears to be opening" in the Middle East and that U.S. diplomatic efforts there must be intensified.

These are some of the points to emerge from a wide-ranging interview with the new Secretary of State, held just after his appointment was announced on Friday and published in a U.S. news magazine this morning.

On other matters, Mr. Vance says that he favours a return to the Kennedy-Johnson policy of freezing all arms sales to South Africa, favours a more relaxed approach to Communist parties in Western Europe, and that it is "terribly important" to keep the North-South dialogue going and urges primary producers to find "areas of mutual interest" with "industrialised nations" as soon as possible.

Mr. Vance says that the first challenge for the new administration is more closely to define what the Russians believe they mean by detente. Like Dr. Henry Kissinger he appears to believe that detente must be "global" which would not preclude political competition but would rule out such things as the recent Soviet intervention in Angola. In particular, Mr. Vance believes that the Belgrade con-

WASHINGTON, Dec. 6.

ference next year on the implementation of the Helsinki is still in progress. Mr. Vance is circumspect about South Africa, except to express his "tremendously important" and that Western nations have been excessively timid in the way that they have approached the issues arising from the Agreement.

Mr. Vance believes that a re-opening window appears to be opening" in the Middle East and that U.S. diplomatic efforts there must be intensified.

The Secretary-designate says he might avail himself of Dr. Henry Kissinger's assistance in a crisis but that he does not intend to call on him immediately.

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Agreement reached on New York crisis

By Jay Palmer

NEW YORK, Dec. 6.

NEW YORK CITY and State officials, together with leaders of the city's major municipal unions, have at last, after a weekend of hard bargaining, reached some kind of agreement over what any new pact to solve this city's longer-term financial problems should look like.

But he clearly favoured "more open" communication with Communist parties in Western Europe, and suspects that Communist participation in Western governments may cause more problems for the Soviet Union in its relations with East Europe than within the Western Alliance.

The penalty for failure in the North-South dialogue, he says, will be confrontation and retaliation, to be in control of the North and South which would which would give the U.S. an have dire consequences for the excellent opportunity to make world economy. He does not real progress provided that favour the linking of commodity internal Israeli-political problems to western export prices do not restrict the Government must be found as quickly as perhaps because negotiations possible."

Businessmen optimistic

NEW YORK, Dec. 6.

A PICK-UP in U.S. business improve next year. A NAM survey also found activity is expected next year by the nation's manufacturers and that 70 per cent of those questioned expect as much as a 5 per cent rise next year in the national gross product, 88 per cent expect their companies to increase production, 72 per cent expect their business executives questioned spending. They believe that business will AP-DS

Carter qualifies aide's remarks on tax rebates

BY JUREK MARTIN, U.S. EDITOR WASHINGTON, Dec. 6.

MR. JIMMY CARTER this morning somewhat qualified the Congressional assertion of the man he has chosen to run the Budget Office, suggested that more Government spending on top of this city's longer-term financial problems should look like.

Even Mr. William Simon, the outgoing Treasury Secretary, said in another interview that if economic stimulus were needed "a tax cut would most certainly be my first choice rather than an increase in federal spending."

But while this basic agreement does represent a very real breakthrough in terms of the longer-term fight against city bankruptcy, it does not in any way help to solve the most immediate financial crisis facing New York.

The city now has exactly nine days left before expiry of its own self-imposed deadline for paying off the \$1bn. of short-term debt held by small investors.

The city's moratorium on capital and interest repayment of this debt was thrown out by the courts.

In terms of finding the money to pay off this debt, it still seems a stand-off. While city and state leaders fight against demanding more federal aid, at least until Jimmy Carter takes office, the city's unions and its creditor banks are insisting that they cannot shoulder all the extra burden.

Given that New York State is in no position to provide all the necessary funding, many now argue that there is really no alternative to begging for increased federal help.

Argentina inflation now at 319%

The cost of living index in Argentina rose by 8 per cent in November and reached 319.3 per cent. so far in the year, the military government has said. AP-DJ reports from Buenos Aires.

Economy Minister Jose Martinez de Hoz said after releasing the figures that the increase came because of higher food prices. It was the fifth monthly consecutive cost of living increase since when the rate was at a year's low of 2.8 per cent. Private economists say that the 1976 inflation rate will be at least 370 per cent, or 35.2 per cent. higher than the 334.8 per cent. record rate since inflation statistics began in 1914.

Aid for Philippines

The U.S. will give the Philippines about \$1bn. in military and economic aid during the next five years in exchange for continued use of military bases in the Philippines. Government officials said in Washington. Reuter reports. The proposed treaty, which must be ratified by the U.S. Senate, is expected to be announced in the next few days.

Helicopter contract

The U.S. Army has said that it is delaying its announcement of whether Boeing or United Technologies is the winner of a multi-million dollar contract for a new helicopter programme, AP-DJ reports from Washington. The contract will cover the production of 1,107 helicopters known as UH-1 (utility, tactical, transport aircraft system) which will be the Army's major helicopter for carrying troops into combat. The programme will cost the Army an estimated \$3.3bn.

GRENADA ELECTION

No surprises expected

By TONY COZIER IN BRIDGETOWN

THE COMMONWEALTH Caribbean has produced some surprising election results this year with the defeat in Barbados of Mr. Errol Barrow's 15-year-old Government, and in Antigua of Mr. George Walter's administration. No surprises are expected in Grenada's election, which takes place to-day.

It will be the first election there since the island and its 110,000 inhabitants gained full independence from Britain early in 1974 amidst considerable internal unrest and a prolonged general strike from which the economy has not yet recovered. Those who organised opposition to independence then did so because they were apprehensive of the unpredictable leadership of the Prime Minister, Mr. Eric Gairy. The same fears have again brought about a united front of three opposition parties to fight this election.

They make strange bedfellows. The parties concerned are the New Jewel Movement (NJM), a radical, left-wing group with a strong intellectual base, and two conservative, middle-of-the-road parties, the Grenada National Party (GNP) and the United People's Party (UPP), which have amalgamated, for the election, into an organisation calling itself the People's Alliance.

Only one common factor binds them—the desire to remove the mercurial Mr. Gairy and his ruling Grenada United Labour Party (GULP) from office. They realised that the major issue of the campaign would be the Prime Minister himself, and that most opposition votes would be as much against Mr. Gairy as for anyone else. Rather, therefore, than split votes in the various constituencies they have devised an arrangement by which the NJM will field candidates in eight of the 15 seats with the GNP and the UPP sharing the other seven.

Domination

It will be a straight fight between Mr. Gairy and his opponents. There can be no doubt that his Government has alienated many of its supporters since it swept 14 of the 15 seats in the House of Representatives in the last election in 1972, but it is doubtful whether the swing will be a serious enough to challenge its domination, let alone remove it. It is true that Mr. Gairy's record and international reputation are shocking. He has been called the Idi Amin of the Caribbean and presides over a Government suffering from chronic economic problems. He has shown himself to be an unpredictable, authoritarian leader.

In the two decades while he has presided over Grenadian politics he has been surrounded by controversy. Under British colonial administration, he was disenfranchised for misuse of public funds and the constitution was suspended in 1962. Yet he proved a resilient politician, bewitching the masses to such an extent that his party has won the last two elections by massive margins. Having achieved independence, he is very much his own boss.

Two recent episodes have illustrated Mr. Gairy's disregard for anything that stands in his way.

The first involves a former superintendent of police, Mr. Innocent Belmar; the second the former Attorney-General, Mr. Desmond Christian. Mr. Belmar was strongly criticised by a Commission of Inquiry into alleged police brutality at the time of the pre-independence disturbances and subsequently removed from office on its recommendation. But he was warmly and publicly praised by his Prime Minister at the time, and has been chosen by Mr. Gairy personally as a candidate for his power, as is expected, on December 7.

The aircraft manoeuvre. How a new use for old skills contributed \$113 million to Cooper Industries' 1975 revenues.

Cooper Industries turned 11 years of experience with jet-powered compressors into an aircraft service diversification. It now accounts for over 24 percent of our sales.

Powerless

The opposition has been powerless to check Mr. Gairy's extravagances and has complained of "unfair election practices" even before a ballot has been cast. It says that GULP has taken time on Radio Grenada for campaign broadcasts without the same facility offered to the Alliance, and it says that the Government Printing Office is issuing campaign literature on behalf of Mr. Gairy's party, and that Government vehicles are being used to publicise meetings of GULP and to convey people to them.

Mr. Gairy's supporters respond by stating that the Prime Minister does not need to resort to such tactics to win. They have seen his influence endure for more than 20 years.

Even so, the performance of the NJM candidates will be closely watched. If they do well, it would shake Mr. Gairy's self-confidence. It is the first time that the group is contesting an election and it will be a test of its strength. Its far left dogma may have left some voters a little apprehensive but in the five years of its existence it has organised itself well in areas where Mr. Gairy has been relatively all-powerful.

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We built our aircraft operation, Cooper Airmotive, to fit into that slot. And it's given us competitive advantages against both the airlines and the smaller outfit.

We're big enough to have equipment, inventory, and engineering talent that smaller shops often can't afford.

But we're small enough to deliver VIP attention to our corporate and airline customers. The kind of attention they might not find in bigger shops.

Cooper Airmotive climbing

We've found a lot of business in this niche between "too big" and "too small." In 1975, Cooper Airmotive contributed \$113 million to the revenues of Cooper Industries, 24 percent of the total.

How did we get from pipes to planes?

In our energy divisions, Cooper Industries had pioneered the use of jet engines to drive gas pipeline compressors. So we already knew something about jets. Their economics. Their engineering. And what kind of service a customer with a sick jet engine expects.

By moving into aircraft services, Cooper Industries got the benefits of diversification without all the usual risks of going into a totally unfamiliar business.

We spotted an opening

Before getting into the business, we knew that there was a need for a strong, medium-sized service organization—positioned between the huge engine shops operated by the major airlines and the small independent shops usually too small to do a good job on jets.

We built our aircraft operation, Cooper Airmotive, to fit into that slot. And it's given us competitive advantages against both the airlines and the smaller outfit.

We're big enough to have equipment, inventory, and engineering talent that smaller shops often can't afford.

Our aircraft strategy is only part of a concrete, pragmatic growth plan that has quadrupled

Cooper Industries' revenue and increased profits fivefold in ten years. Check our current progress in our latest annual report.

Write to: Cooper Industries, Inc., c/o Coopind Ltd., 173 Sloane Street, London, SWIX 9QO, England.

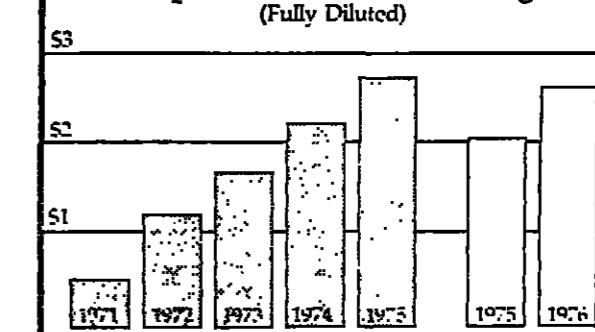
Operate what you acquire. That's non-glomeration. We put it to work in:

Hand Tools The Cooper Group (Lufkin, Crescent, Weller, Nicholson, Xelite). Rotor Tool.

Aircraft Services

Energy Services Cooper Energy Services (Cooper-Bessemer, Ajax, Penn Pump, Superior).

Cooper Industries Share Earnings (Fully Diluted)



Headquartered at Two Houston Center, Houston, Texas 77002 U.S.A.

Diversification can be good for a company. Sticking to what you know best can be even better. By moving into the aircraft servicing business, Cooper Industries managed the best of both worlds.

Although official statistics are either unavailable or not entirely reliable, the Government is thought to be operating on an overdraft spread among several commercial banks, of up to East Caribbean \$20m. (about £15m.).

A report from the Inter-American Economic and Social Institute recently estimated that Grenada would need a minimum of EC\$5m. annually to support its budget. Mr. Gairy is hoping that the money will come from Britain, which has already announced a grant of EC\$10m. over the next two years, and from international agencies such as the World Bank and the Caribbean Development Bank.

However, it is very difficult to find anyone in Grenada who speaks optimistically of the future. Even Mr. Gairy, who once described himself as "the eternal optimist" must be disappointed with the results of his island nation's first two years of independence. Unfortunately, there is nothing to give hope of any significant improvement if his Government is returned to power, as is expected, on December 7.

Cooper Industries, Inc.
THE NON-GLOMERATE



South African riot police shoot five

BY JOHN STEWART

SOUTH AFRICAN riot police have shot dead at least five Africans and wounded 14 more, while two African youths have died in faction fights and nearly 30 houses in the black townships of Guguletu and Nyanga have been destroyed by fire in township violence since the weekend.

Last week nearly 300 Africans were arrested in a massive police security check following arson attacks on the homes of people thought to be police informers.

According to police spokesmen, fighting broke out in Nyanga township early today when militant youths tried to prevent contract workers from going to work in accordance with a call circulated at the

weekend for a two-day stay-away.

Police said the fight developed into something of a tribal clash because the contract workers, who are housed in hostels, are to be members of the Baca tribe of eastern Cape, while the youths were largely the children of permanently settled urban Africans of indeterminate tribal origin. The contract workers are assisted by older township residents who have "had enough" of youth violence.

Feelings between the African groups ran high on Saturday when youths attacked the home of a Baca man they accused of selling illicit liquor. This

aroused the anger of Baca workers living in a nearby hostel, who organised a reprisal attack in which at least two youths were killed.

Last night prompt police action prevented a further fight between the Baca and the youths at the single quarters. About 5.30 a.m. today, coinciding with the beginning of the protest strike, the youths retaliated, setting fire to homes and attacking migrant workers. The workers in turn attacked the youths and intimidators. Police reinforcements were rushed to the scene and on a number of occasions opened fire. Twelve people, aged between 16 and 42, were wounded.

On Saturday, police shot and killed two black youths when a crowd attacked a police vehicle in Guguletu. In Nyanga today many residents carried their furniture and other belongings into the street and stood guard over it. By mid-day the police seemed to have the situation under control and an uneasy calm descended on the township.

In several incidents police opened fire early today and it is believed 12 people had been shot and wounded by mid-morning. Their ages vary between 16 and 42. A number of people—mainly youths—were arrested by members of the anti-riot unit, mostly on charges of public violence.

Rhodesian police seek killer of bishop

SALISBURY, Dec. 6.

RHODESIAN security forces to-day combed dense bush country in western Rhodesia in search of a black terrorist who ambushed and killed three Roman Catholic missionaries from Germany, yesterday.

Bishop Adolf Gregor Schmitt, the 71-year-old former Bishop of Bulawayo, Father Pössen Weggen, director of the Regis Mundus Mission, and Sister Maria Francis van den Berg, a member of the same mission, were killed.

A security forces communiqué last night blamed the murder on "terrorists" but liaison officers at security forces headquarters said to-day only one terrorist armed with an automatic weapon and presumed to be a member of the black nationalist guerrilla movement appeared to be involved.

The officers said the terrorist laid a log across the road and stopped the Bishop's car. The sole survivor of the attack, Sister Ermendorf Krauer, later told a doctor the terrorist had demanded money.

"We told him we had no money with us, that we were missionaries just out for the afternoon," she said.

"We told him 'if you really need money come back with us to the mission and we will help you.' The terrorist replied that as we had no money he would have to shoot us. He began gunning us down, starting with the Bishop. He riddled him with bullets. Then he mowed down the others."

Sister Ermendorf said she threw herself under the car and the terrorist shot her in the leg, which was protruding from under the vehicle. The terrorist wore a camouflage uniform and a balaclava-type hood, she added.

She was picked up by a matulato family who took her to the St. Luke's mission, where the missionaries had intended to visit a sick friend.

At St. Luke's, Dr. Johanna Davis, medical superintendent of the medical centre, arranged to have the nun transported to the Mater Dei Hospital in Bulawayo.

Bishop Schmitt, a native of Rimpf, Bavaria, first came to Rhodesia in 1932. He later served in Germany and the U.S. and returned to Rhodesia after his consecration in 1957.

Because of ill-health and at his own request, he was succeeded by the Rev. Henry Koenen as Bishop of Bulawayo in 1974. UPI

The Zimbabwe People's Army (Zips) to-day said its forces killed more than 1,200 Rhodesian soldiers in the first nine months of this year. Reuter reports from Maputo.

A Zips communiqué said that from January to September 1,256 Rhodesian soldiers were killed, 145 vehicles and six bridges destroyed and 45 aircraft mostly helicopters, shot down.

Gabon to freeze debt until 1979

PARIS, Dec. 6.

PRESIDENT Omar Bongo of Gabon said to-day he is trying to consolidate the country's \$1.5bn. public debt and will refuse to repay any loans until 1979.

In an interview, published in Danielle Hunebelle's International Newsletter, President Bongo said: "Our loans are too short-term. We made a decision until 1978 I will not pay anyone, nor will I repay anything."

Asked if his public denunciation of corruption, incompetence and lack of professionalism in Gabon might discourage bankers to advance a \$150m. credit in three stages, President Bongo replied: "The credit is not such a problem. For 1976 we don't need any of it."

The President rejected suggestions that Gabon's oil production will fall off sharply by 1980, adding that his view to the contrary "is based on what I know and on the enormous exploration efforts of the oil companies."

Regarding future policy on foreign investment in Gabon, President Bongo said: "From now on I don't want anyone coming to invest without having our people participate." He said he did not favour nationalising banks "as long as they pay attention to Gabon, rather than running after loans in other countries," and noted that Citi bank had just opened up and that he believed there was room for others.

The President maintained that Gabon's public debt "is not that heavy, if you compare with other countries." AP-DJ

South Africa's crackdown on dissidents has been checked by the acquittal of five white students. But for how long?

No place to hide

BY A SPECIAL CORRESPONDENT

TO THE sound of cries of "Praise the Lord," the longest trial of white students in South Africa's history ended last week.

The trial involved four white student leaders, all of whom have held office in the National Union of South African Students (NUSAS) and university lecture-tutors Edward Webster, a year of length state and defense argument, Johannesburg. Magistrate Mr. G. Steyn acquitted the five of charges under South Africa's Suppression of Communism and Unlawful Organisations Acts.

The charges arose originally out of a NUSAS campaign calling for the release of political prisoners. Many of these prisoners were at one time officials of the banned African National Congress or South African Communist Party.

The state alleged that the campaign had furthered the aims of these organisations which is a criminal offence in South Africa.

But the charges were far more wide-reaching. Webster's chief alleged offence was to present a paper analysing the rise of the black consciousness movement which since a significant political factor. The student leaders, Cedric de Beer, Karel Tipp, Charles Nupen and Glenn Morris, were charged with offences, such as "conspiring to bring about an egalitarian society," criticising the content of courses at the universities and investigating the financial structure of universities.

Indeed, so wide-ranging were the charges that Johannesburg's liberal morning newspaper, the Rand Daily Mail, suggested that, if some of the acts alleged were in contravention of the law, all opposition to Government policy would probably be illegal.

The verdict has been greeted with relief in many white circles. The activities of white supporters of change have at least been shown to be above board—within the framework of South Africa's draconian security legislation.

It is also a triumph for Nusas which has been under constant attack from a variety of quarters for some years. While officially non-racial, Nusas has lost all its black membership to the rival black body, Saso (South African Students' Organisation). Black students

have argued that they have different problems to those of whites, and that whites have no lasting commitment to change.

Nusas has also been the focus of concentrated Government attack—at least since the early 1960s. The then Minister of Justice, John Vorster said in 1969: "Nusas is a cancer in our society and I will deal with it in my own time."

In recent years, however, the campaign against Nusas has been considerably stepped up. First the passports of a large number

of office bearers were withdrawn. Then, after a lengthy parliamentary inquiry—shunned by the opposition Progressive Party, but supported by the United Party—eight of its office bearers were banned under the Suppression of Communism act.

Since then, Government opponents have called consistently for the banning orders to be lifted or for the victims to be put on trial. Last week's verdict has been followed by calls to lift the banning orders. The Government is unlikely to pay any attention.

The verdict was greeted with

Detention powers

The South African Police are provided with wide-ranging powers of detention and restriction over the movements of both suspects and witnesses of crimes under the country's security laws, our Foreign Staff writes.

The two principal measures providing these powers are the Terrorism Act and the Internal Security Act, which incorporates the former Suppression of Communism Act.

The Terrorism Act provides the most drastic powers, including indefinite detention in solitary confinement for both suspects and witnesses to offences, and put the onus on the accused to prove his innocence.

As well as overt terrorism, the Act defines it as an offence to further the achievement of any political aim, including social or economic change, not only by violent means but also with the co-operation of any foreign or international body.

Other offences include such apparently non-political crimes as causing bodily injury, endangering the safety of a person or causing substantial financial loss to any person or the State.

The Terrorism Act provides that no court can challenge the validity of any action taken under the detention provisions or order the release of any detainee.

The Internal Security Act, which became law this year, introduced preventive detention for any person whom the authorities consider might constitute a danger to law and order.

Such detention lasts for a year, and is renewable by the Minister for Justice. It is subject to review by a tribunal. But both the meetings and membership of that body are secret, as are its findings.

The Act includes the former, wide-ranging Suppression of Communism Act, under which most of the bannings of political activists have been carried out.

Banning, at the discretion of the Minister, restricts a person from holding office, being a member, or attending meetings of periodically listed organisations. That person may not be quoted in the Press, assist in the compilation of any publication or enter premises where a publication is put together.

Under the General Law Amendment Act suspects can also be detained for up to two weeks without trial, as can witnesses to any offence. Such detention must be renewed by a Magistrate for a further two weeks.

delight by delegates at the detainees than at any time since Nusas congress, held in Johannesburg last week. But behind the Sharpeville massacre and its aftermath in the early 1960s, the joy is a lurking fear: having

According to figures compiled by one research organisation to finally destroy Nusas through the courts, will be most of them black, were in

police now decide that trials are most of the time black, were in

not worth the effort, and resort to more arbitrary methods of "security laws." Since then, however, people have been simply

questioning student and white liberal dissent?

Certainly the recent wave of detentions (affecting mainly the black township of Soweto) in neighbouring states, but parents

in Soweto are convinced that

the trial is largely a trial of ideas. Unlike the recent spate of "conspiracy trials" in which the accused have been charged with secretly conspiring to overthrow the government, the accused are being charged with publicly holding certain views which, the state argues, have violent implications.

If the accused are convicted, black consciousness organisations may well be prevented from operating. If they are acquitted, supporters of black consciousness would have the comfort of knowing that their broad aims are legal in the eyes of the court.

How much of a comfort that would prove to be remains doubtful. Mr. Kruger has said that he believes black consciousness to be "black nazism."

If the government cracks down on African trade unions, widely regarded as more conservative than black consciousness organisations, they are unlikely to leave black consciousness supporters alone.

The Acornas debate blew up following a similar package deal between GEC and the Brazilian

HOME NEWS

Moderate slow-down forecast for 1977

Financial Times Reporter

FORECASTS collected from sources in the main developed countries suggest that the slow-down in world activity next year will be only moderate, according to stockbrokers Phillips and Drew.

The forecasts, from sources which we believe to be reliable, show a fairly sharp decline in Germany from a 6 per cent growth rate to 4 per cent, and in the U.S., where growth is forecast to fall from 6 to 5 per cent. Little change is forecast however for France or Italy, with slightly faster growth this year than the U.K., and a more considerable improvement from 2 to 2 per cent in the main OPEC countries. This would result in an average 4.1 per cent growth rate for the whole group down by half a point.

Based on these expectations, stockbrokers forecast a growth in world trade of 8.9 per cent next year, compared with 11 per cent this year. But they caution that there may be a further slowdown early in 1978.

These forecasts are broadly consistent with, but considerably less depressing than, recent EEC predictions suggesting an abrupt slowdown to growth and trade from mid-1977.

Our £100,000 'lost' in rates delay

A BACKLOG of rating appeals have left Moorlands District Council in Staffordshire an estimated £100,000 it was disclosed yesterday. The council has been told that about 2,000 cases are waiting to be heard in the valuation court.

The delay in assessment of property and rate appeals means that some people in the area have not paid rates for two years and the Council is unlikely to recover any of the lost cash.

Machine tool aid scheme attracts more interest

BY KENNETH GOODING, INDUSTRIAL CORRESPONDENT

INTEREST in the Government's £20m. machine tool industry aid scheme has picked up considerably since important changes were made four months ago.

The scheme, launched in August 1975, has registered the poorest response of any of the four industry aid schemes operating.

But it was altered in August this year to attract more small companies and to take in two sectors closely connected with the machine tool industry—makers of one-off tooling (jigs, fixtures, press tools and so on) and of assembly machines.

Since then, 52 companies—most of them small—have started "meaningful discussions" with the Department of Industry concerning the scheme. Many more have shown a serious

interest. By the end of last month the Department had received 47 formal applications involving projects with a total cost of about £35m. If approved, they would attract £5.5m. in Government aid.

The Department had also made firm offers to help 16 projects in which Government aid of £2.5m. would go towards total investment by the companies concerned of £13.8m.

This is still a long way behind the most successful of the aid schemes—that for the ferrous foundry industry—which has attracted applications from more than 250 companies asking for £5m. of aid in respect of projects worth £25m.

The aid scheme—for which applications should be made before December 31—should be extended "because we were committed to new designs and products when it was first offered."

Hopes of work in Middle East dashed

DOCKERS at Felixstowe, Suffolk, who have been waiting since August to fly to £10,000-a-year jobs in Saudi Arabia face Christmas on the dole.

The men gave their notices to go to tax-free jobs at the Middle East port of Damman but the company which offered them employment, Maritime Transport Overseas, has been unable to obtain the visas from the Saudi Embassy.

Stockbrokers judgment later

MR JUSTICE FOSTER yesterday reserved his judgment on the claim by the joint liquidators of Mitton Buller, Priest, stockbrokers, that former directors and associates of the company are liable to the liquidators for the company's debts and obligations.

The men have given their notices to go to tax-free jobs at the Middle East port of Damman but the company which offered them employment, Maritime Transport Overseas, has been unable to obtain the visas from the Saudi Embassy.

The venture—which will cost about £500 a year each, will involve centralised marketing on behalf of both individual companies and the group as a whole, aimed particularly at the offshore oil industry.

The move follows a successful initiative by Strathclyde Regional Council's industrial development unit to try to secure more of the £1.3bn. a year North Sea market for local engineering companies.

A register of all companies in the region with products applicable to the offshore oil industry, or who wanted to enter the market, has been compiled.

The list has been sent to the purchasing department of oil

erning local telephone exchanges which led, after his appointment as director of operational programming in 1971, to the adoption of TXE4 as the next generation of switching systems for large local exchanges. In June 1973, Mr. Whyte was appointed director of purchasing and supply.

Sir John Partridge has accepted an invitation to become the first vice-president of the SOCIETY OF BUSINESS ECONOMISTS.

Mr. I. Roberts has been appointed a director of FRANCE PENNICK.

Expanded Metal Company has formed a subsidiary called EXPAMET EXPLOSAFE. Its directors will be Mr. E. C. Prentice (chairman), Mr. K. C. Fryer (managing director) and Mr. W. N. Waudby.

Mr. Brian A. E. Rogers has been elected a director of E. GRAY AND CO. (OVERSEAS).

Mr. Barry Peacock has been appointed to the Board of HALLENS OF CAMBRIDGE and CHESTERTON AUTOCARS as sales director.

Mr. R. A. Fell has been appointed a director of SOOSEY AND HAWKES from January 1 and succeeded David Adams, who is retiring from the Board at the end of this year.

Reabrook Investment Trust states that the acquisition of SUMMARY FIFTEEN has been completed and the following have been elected directors of the company: Sir Henry d'Avigdor Goldsmid, Mr. N. V. Berry, Mr. P. G. Howard and Mr. W. A. Waller.

Mr. John Crabb has been appointed managing director of JOHNSON WAX. He comes to England from Johnson's International headquarters at Racine, Wisconsin, where he was director of overseas marketing.

Mr. D. E. Lee has been appointed technical director and Mr. Kevin Musgrave, financial director of COCKER BROTHERS, a subsidiary of Woodhouse and Tison (Holdings).

Mr. B. D. Warren has joined LESSER CONSTRUCTION (SOUTH) as director-general manager.

Mr. T. Irvine is resigning as managing director of C. E. HEATH AND CO. (SCOTLAND) from January 1, but will remain a director. Mr. W. M. McDonald will become managing director and Mr. J. Gordon, development director from that date.

Mr. C. W. Clarke, CREE (C. W. Clarke & Co. Ltd.), 100 Grosvenor Gardens, London SW1, has joined the firm of C. W. Clarke & Co. Ltd., 100 Grosvenor Gardens, London SW1, and any Creditor or Contributary of the said Company will be entitled to receive payment of the amount due to him by his counsel for that purpose, and a copy of the Petition will be furnished by the undersigned to any Creditor or Contributary of the said Company remaining in London in respect of the regulated charge for the same.

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HOME NEWS

Dunford fends off JFB again

By Terry Wilkinson, City Staff

JOHNSON and Firth Brown, whose appeal against an injunction stopping it proceeding with its takeover bid for fellow Sheffield steelmaker, Dunford and Elliott, was allowed on Friday, has had its plans blocked again.

The latest setback is the result of a further approach by Dunford and Elliott to the City Panel on Takeovers and Mergers, which temporarily prevents JFB from issuing its formal offer document.

Dunford, which contacted the Panel immediately after Friday's judgment said that the Court of Appeal had not dealt with the rights and wrongs of its claim that confidential information passed to JFB by the Prudential Assurance had given JFB an "unfair advantage" over Dunford shareholders.

Morgan Grenfell, advisers to Dunford, has twice before contacted the Panel on this issue. The first time was before the bid, when it became aware that JFB may have had access to confidential financial information, and the second after the bid, when it succeeded in imposing a temporary ban on JFB's purchases of Dunford shares.

Information

It emerged in the Court of Appeal hearings last week that the Panel had sent a letter to JFB's advisers, Lazard Brothers, the day after Dunford learned its injunction writ, on November 16, saying that but for the writ and "subject to any significant new arguments" by Morgan Grenfell, it would have lifted its ban.

Morgan Grenfell is believed to feel that it has not yet had a chance to put its side of the case fully to the Panel and that, before the injunction hearings it did not know the full extent of the information passed to JFB.

The City Panel, the moral watchdog of the City, is to be asked to rule, in a war the Court was unable to, on the ethics of using confidential information provided for the purposes of underwriting a rights issue as a basis for a take-over bid.

Some drivers 'wasting time'

DRIVERS who obey the law by sending off special forms detailing sales of cars are wasting their time, according to the Vehicle Licensing Centre in Swansea. Their staff ignore the disposal forms—which arrive by the hundred every day—because they allegedly cause more trouble than they are worth.

The centre said yesterday that forms giving details of new owners were often not filled in correctly, and involved much time and effort in "clerical" correction.

As a result, staff ignored forms from previous owners and waited for those from new owners.

World Value of the Pound

The table below gives the latest available rates of exchange for the pound against various currencies on December 6, 1978. In some cases rates are nominal. Market rates are the average of buying and selling rates except where they are shown to be otherwise. In some cases market rates have been calculated from those of foreign currencies to which they are tied.

Exchange in the U.K. and most of the countries listed is officially controlled and the rates shown should not be taken as being applicable to any particular transaction without reference to an authorised dealer.

Abbreviations: (S) member of the sterling

Higher imports boost car sales to surprising 37%

By TERRY DODSWORTH, MOTOR INDUSTRY CORRESPONDENT

CAR SALES in Britain increased last month by an unexpected 37 per cent, but this was accompanied by an increase in imports.

The new registration figures, issued yesterday by the Society of Motor Manufacturers and Traders, show that the British industry is still suffering from the supply weaknesses that have affected it throughout the year.

They will worry the Government, which has expressed

U.K. NOVEMBER REGISTRATIONS		
British Leyland	29,864	27.8
Ford	27,512	25.6
Vauxhall	10,755	9.5
Chrysler	7,066	4.6
Renault	4,755	4.4
Fiat	4,670	4.3
Datsun	4,590	4.3
Others	18,705	17.5
Total	107,330	100.0

other European importers have been able to maintain their U.K. sales regardless of their deteriorating competitiveness as a result of the slide of the pound.

Partly because of the import position, British manufacturers are continuing to gear up for higher production next year. It is felt that many import sales could be regained if supply were better.

There is some anxiety that next year's sales will not be as high as the 13.5m. cars recently predicted by the motor traders, which are trying to persuade Japanese manufacturers in Britain—Ford, Vauxhall (General Motors), and Chrysler, which have all begun supplying more cars in this way during the last year.

On the other hand, this year's registrations look set to exceed the forecast 1.27m. units by the end of the first 11 months of the year, sales stood at 1,224,580, an increase of 7.2 per cent on the corresponding period last year.

In spite of the expansion of the multinationals' imports, however, the figures indicate that against 34.1 per cent last year.

Ford was the largest importer last month, at 6 per cent of the total. It brings in Capris, Granadas and special Escorts from Germany.

Imports in November were 34.8 per cent up (107,330), increased from 34.8 per cent in November last year.

A substantial amount of this

was due to the import of vehicles from the Continent, predicted by the motor traders.

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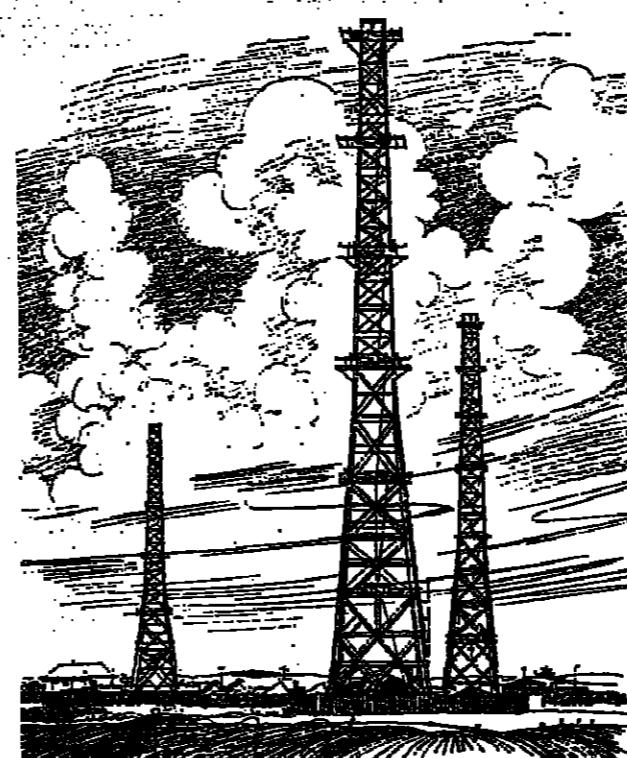
Partly because of the import position, British manufacturers are continuing to gear up for higher production next year.



1926 Four independent chemical companies merge to form ICI.



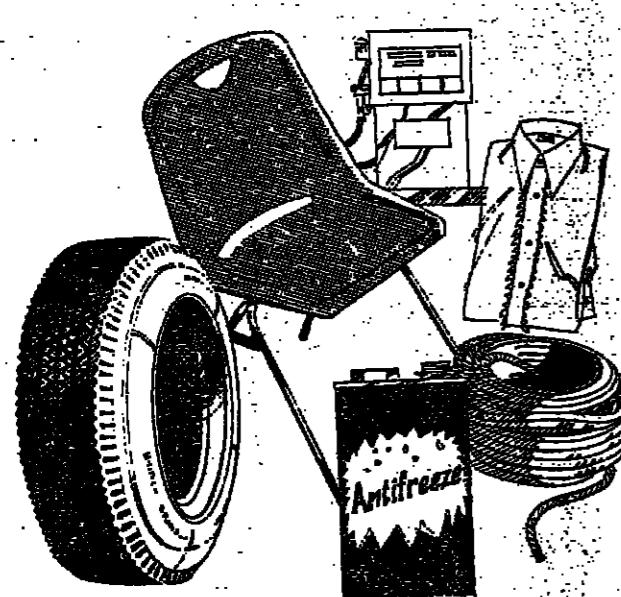
1929 First meeting of Central Works Council. Pioneered joint consultation in industry.



1933 Polythene discovered. First major use—wartime radar.



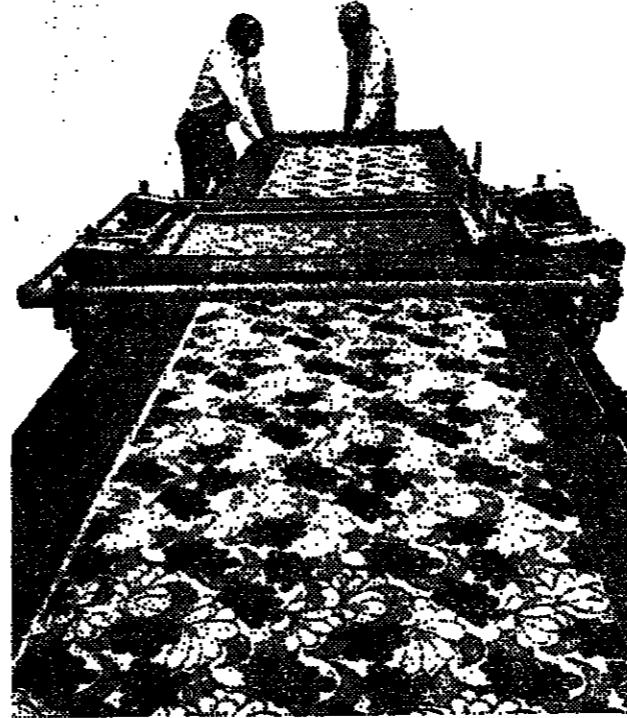
1944 Important pharmaceuticals breakthrough with discovery of anti-malarial drug.



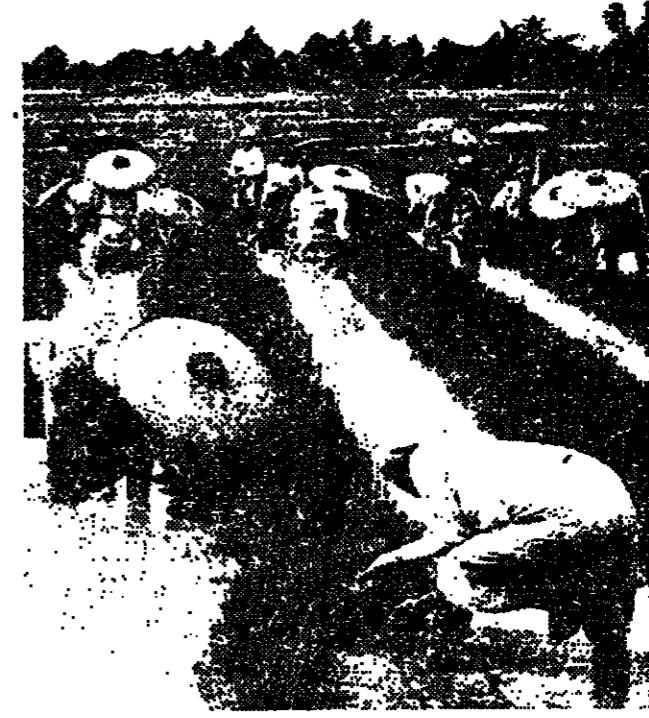
1951 New plant commissioned on Teesside to make chemicals from oil—major step in development of plastics and man-made fibres.



1952 First commercial production of 'Terylene'.



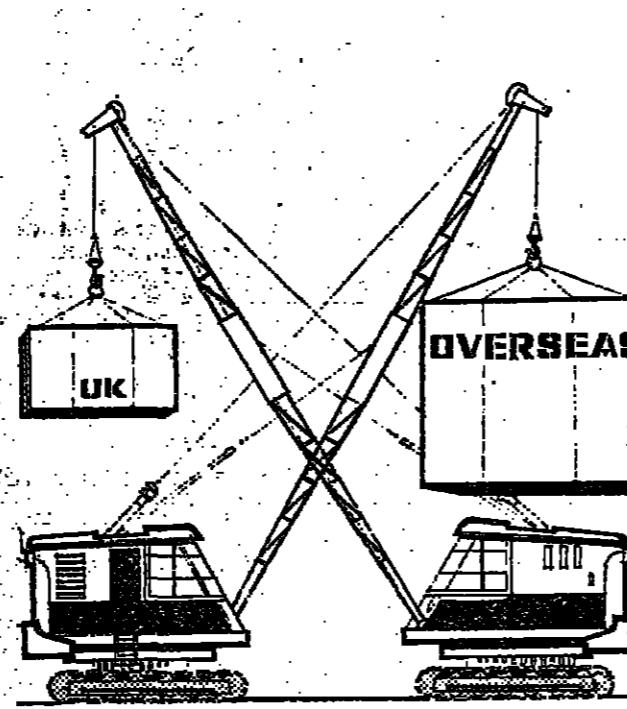
1956 First fibre reactive dyestuffs marketed—the 'Procion' range.



1951 Bipyridyl herbicides introduced. Vitally important for the development of agriculture throughout the world.



1963 First major ICI European chemical complex commissioned at Rozenburg, Holland.



1967 Overseas sales exceed home sales for the first time.



1971 Purchase of Atlas Chemical Industries marks major expansion by ICI in North American market.



1976 ICI go ahead with £40 million investment to make protein for animal feedstuffs using North Sea Gas.

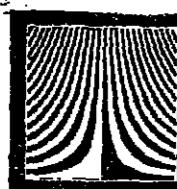
Today ICI celebrates 50 years of Ideas in Action

Our future success lies in preserving a genuine regard for the interests and aspirations of people—not only the people who work for us, but those who buy from us, sell to us, live near our plants, supply our capital and depend on the wealth we generate.

Sir Rowland Wright, Chairman of ICI.



1926-1976



The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

ELECTRONICS

Study may avoid big bang

BEATING three large Japanese groups around which the water flows electronics groups to the punch, and there has been a great deal of a comparatively small U.K. electronics company of concern, particularly in Germany and Japan, as to what might happen in such a radio-control system for the super-active furnace should the coolant system of particularly important testing equipment be lost for one reason or another.

It has been claimed that emergency cooling systems would cope with any such event. But the Japanese nuclear authorities are not prepared to accept such claims without a detailed investigation. The study of the behaviour of zirconium metal at high temperatures is part of their attitude.

The experiment is built around an array of zirconium tubes containing heaters to simulate the uranium and pressurised with helium. Power to the heaters is computer-controlled and as the heating is cycled, TCS at Broadwater, Worthing, Sussex BN14 8NL 0903 31681.

The furnace of a reactor is made up bundles of fuel rods readings from 60 temperature

points and 49 pressure points within the simulated furnace are scanned every two seconds.

Characteristics of zirconium change very quickly as the temperature approaches the melting point of this refractory metal. Therefore, the TCS equipment has had to be built to respond in flash to any sudden jump in a reading. When this occurs, the controller will alter the scanning pattern to range closely around the "fault".

The contract for this complex unit took some two years of negotiations to secure and brought in £100,000 and a great deal of prestige for the small British company which indicates that some 50 engineers and technicians devoted about 7,500 man-hours of design, development and construction work to the array.

More from Orme Road, Worthing, Sussex BN14 4IZ (0903 204666).

a compact petrol generator at

Using a small two-stroke motor the company, Scorpio Electric, has added a magnet type of generator in a vertical shaft arrangement that calls for no bearings on the generator itself and very little maintenance of any kind.

Overall dimensions are 13 x 10 x 13 inches and the weight is only 20 lbs. Quiet operation is obtained from a heavy-duty silencer.

The "Sussex Elf" is capable of producing six amps at 45 volts and for battery charging purposes the engine speed is manually adjusted to produce the required charging current. The unit has no switches and is short-circuit proof.

It also has the necessary fittings to enable it to be used as a portable/emergency floodlighting unit with twin 55W lamps, as a yellow/blue bashing beam

More from Orme Road, Worthing, Sussex BN14 4IZ (0903 204666).

Agreement on chips

CLOSER co-operation than at any time hitherto appears to be the order of the day among circuit manufacturers, the accent being on established majors keeping down research and development costs by licensing or cross-licensing arrangements concluded with leading innovators, or so it would seem.

The latest series of accords has just been announced by General Instrument Microelectronics. ITT has obtained from the latter a licence to manufacture and sell GIM's CP-1600, which is a micro-processor on a single chip.

ITT will also provide ITT with proprietary technical information so that it will be enabled to manufacture the 1600 immediately, together with associated components. ITT thus becomes a world second-source for this powerful micro-computer, with manufacturing based in Freiburg.

In a different, but equally important area of semi-conductors, GIM has reached an understanding with Sescossem, the semiconductor wing of France's ERA at Leatherhead has just released details of a method that produces patterned transparent electrodes conveniently for telephone sets.

GIM has done a great deal of unnamed metal compounds is

pioneering work in this area, screen printed in the required patterns on to plain glass sheets which are then heated in a furnace.

During firing the organic paste completely decomposes to leave a thin metal oxide film bonded to the glass. In this way the conducting film is deposited, formed and patterned in two simple operations. Ordinary window glass can be used as the substrate and high optical transmission is obtained. Sheet resistivity is normally around 800 ohms/square but higher conductivities can be obtained by modified processing.

ERA claims that the technique offers display device manufacturers substantial savings compared with available alternatives, together with the ability to coat glass in-house. More from Electrofilm Products Division of ERA Patents, Cleeve Road, Leatherhead (0372 74151).

POWER Generator keeps cost modest

TAKING advantage of the current difficulties of some importers, notably the Japanese, a Sussex company has introduced 61377.

MANY OF the newly-emerging solid state and gaseous display devices need transparent conducting paths on the glass substrate and ERA at Leatherhead has just Thomson-CSF, for the second-sourcing of each other's telecommunications microcircuits electrodes conveniently.

An organic paste containing unnammed metal compounds is

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No-break hybrid supply

THE BEST of static and rotary no-break power supply systems is provided in a hybrid equipment introduced by Anton Piller. Improved performance and reliability in relation to other systems is claimed and yet it is only half the size, weight and cost of available static systems states the company.

It consists of an alternator mounted on the same shaft as a DC motor, the latter powered from stand-by batteries. Heart of the system is a solid state static switch; this senses the mains supply, which normally passes through it to the load and also to the alternator. In this mode the alternator behaves like a motor, turning the DC motor and causing it to act like a generator. The batteries are thus charged.

However, when a mains failure occurs the static switch connects the load direct to the alternator output. The batteries provide the power to the alternator via the DC motor, thus maintaining load power.

There are not many electronic components and as a result a MTBF of 10 years of operational life is claimed. Lovell Lane, Cirencester, Glos. GL7 1YQ (0285 61377).

PROCESSING

Nibbled asbestos is dustless

CUTTING ASBESTOS insulating board with high speed saws or discs always produces dangerous levels of asbestos dust. Now a method of cutting the board has been developed which does not produce dust, and complies with the Asbestos Regulations 1989 requiring a dust level of not more than 2 fibres/millilitre in the atmosphere breathed by

the user. The T14 is programmed to minimise this waste far faster

and more effectively than is humanly possible.

Reductions from 8-9 per cent

are reported. Photo-electric

cells set intervals along a

gravity roller conveyor trigger

the computer programme, which

in turn tells the saw to cut the piece in accordance with the overall programme.

The machine is made by

Wadkin, Green Lane Works

Leicester LE8 4PF. 0533 76811.

experienced operator. A manufacturer is apt to end up with 8 per cent or more of waste.

Some waste can be saved by putting it through a finger-feeding machine to make it into saleable lengths. While these are no doubt to BSI specifications, they may not be acceptable to customers for technical or aesthetic reasons, and it again introduces an extra process.

Indeed, it would prove impracticable to provide sufficient angering capacity to deal with all the waste from a busy joinery.

The T14 is programmed to minimise this waste far faster and more effectively than is humanly possible.

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clustering timer, coupler

sequencer. Energised contacts are shown on the seven intensified.

Furthermore, no logic can

be required to change or reverse

the sequence of operation. It is

done electrically with a

memory, loader and programme changes can be completed minutes.

The controller can be set

expanded economically for

eight input, eight outputs and

memory to a combined total of

1024 inputs and outputs as

either 4k or 8k of memory.

Model IPC-300 has non-volatile

memory and IPC-1000 has u

nitic core.

Applications are expected to

the motor car, steel, chemical

food, metalworking and other

industries where repetitive

and sequential processes are

required.

The controller can be set

out by the British Standards

Institution, which is preparing a

standard for bicycle safety. BSI

advises cyclists to check whether

their cycles have hooked head

rims, which should be marked

"IBS" (not always present). The

cycles are usually of the folding

type, and the tyres are marked

"20 x 1.75". British tyres

are marked "20 x 11", although

nominally of the same size, are

not for straight-sided rims and will

not be satisfactory.

● AUTOMATION

Solid state but looks

like relays

INDUSTRIAL controllers have

been introduced by Cutler Hammer Europe which although solid

state in operation can be pro-

grammed directly to provide se-

quencing and skip functions in

addition to relay logic, timing,

counting and arithmetic

operations.

They consist of a central pro-

cessor, input and output units

and power supplies. Either a dis-

play-based memory, loader

and an industrial safety stat-

ion or a simpler push-

button device is used for pro-

gramming, monitoring, and fault

The display version can show

in real-time two complete lines

of relay logic simultaneously in

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LABOUR NEWS

Rubery Owen strike ends, NALGO attack on but toolroom men walk out public spending cuts

BY ALAN PIKE AND ARTHUR SMITH

Maintenance Engineers a complex incentive scheme. Rubery Owen, the West Midlands car components supplier, agreed yesterday to end their unofficial strike, which in recent months has made 9,000 other workers idle, as men in Leyland Cars Rubery Owen about £1.5m. in lost production. The company recently-formed unofficial joint committee has said that continued dispute will put its viability at risk.

Both disputes illustrate the mounting frustration about erosion of differentials in the engineering industry, which employers are powerless to correct during the present rigid pay policy. There is a strong likelihood of more such strikes this winter.

Although the 120 Rubery Owen engineers decided to call off their action, the cause of the dispute is by no means settled. Shop stewards said that the men had agreed to resume normal working only so that negotiations on their pay claim could continue.

They denied suggestions that workers sought increases of a week, and said they believed the claim could be met within the social contract.

Basic to the prolonged industrial unrest at Rubery Owen's Aston plant, where 2,750 are employed, is the chaotic pay system, which allows workers doing virtually the same job to enjoy markedly different earnings.

The maintenance engineers, on

maintain they are doing extra work because their numbers have been cut by 25 per cent.

Prolonged company-wide toolworkers' strike would be very serious.

The three-week strike has cost serious.

The action was organised by a toolroom committee, founded in the Cars Division, but now, according to its leaders, attracting support from toolrooms in the workers' idle, said a progressive Truck and Bus and Special recall would begin as soon as Products Divisions.

The committee is concerned about erosion of pay differentials and the wide disparity of earnings between toolrooms, and including the big factories, at demand separate pay negotiations at Luton, Bridgwater, where 1,000 men joined the strike, and Cowley, Men at the Swindon body plant and the company's Llanelli factory remained at work.

Leyland Cars dismisses convenor

LEYLAND CARS has dismissed

Mr. Bob Knight, the convenor

alleged to have accepted pay-

ments from workers seeking

jobs at the Castle Bromwich

Birmingham factory.

Mr. Knight was suspended

on full pay at the beginning of

November while the company

investigated allegations of

malpractice.

The Amalgamated Union of

Engineering Workers yesterday failed to agree with management after all the procedures had been exhausted.

The issue will be considered to-night by the Birmingham East district committee of the AUEW, which seems likely to seek the advice of the national executive on whether legal assistance should be given to

Mr. Knight.

BY DAVID CHURCHILL, LABOUR STAFF

BRITAIN'S biggest public sector threatened to impose redundancies and severe cuts in services.

Warning of possible zero growth next year unless the Government pinned its policy of industrial changes to the union call for selective import controls, financial investment in industry, including two-tier interest rates, and strong exchange controls to stop British companies investing overseas.

The national executive of the Civil and Public Services Association is to-day considering a demand to step up their opposition to manpower cuts in the Civil Service. The call comes from members in the Department of Employment whose ban on statistical work has delayed publication of the unemployment figures. They want the union to impose a more effective alternative to the two-tier system of selective action.

These policies, he said, had led the Government to believe that cuts in the public sector would generate a revival in manufacturing industry. "Redundant public servants are not miraculously transformed into machine tool operators," he added.

To support his arguments, the union has produced a special economic review which again calls for the Government to change its economic strategy and adopt the alternative policies advocated by NALGO and the TUC.

This economic view will be presented to the union's special conference on expenditure cuts early in January when a resolution endorsing further industrial action against the cuts is expected to be passed.

Already NALGO members have taken limited industrial action against councils who have objected to their pay award

Prior launches his own plan for worker participation

BY JOHN ELLIOTT, MANAGEMENT EDITOR

The sharply opposing views on representatives, and share by voluntary experiments in industrial democracy held by the holders, who will have the right to veto certain key matters.

These ideas came under attack from Mr. James Prior, shadow Employment Minister, at an Industrial Society conference in London yesterday. They were also criticised by Mr. Hugh Scanlon, president of the Amalgamated Union of Engineering Workers, which opposes the idea of worker-directors in the private sector.

Mr. Prior gave an alternative 13-point programme which was a mixture of official Conservative Party policy and his own views. It will be accompanied by a memorandum of dissent from three industrialists on the committee.

The main recommendations will provide for a unitary Board system for Britain's biggest 600 companies, with final responsibility for company affairs being shared between this Board, which will include employee

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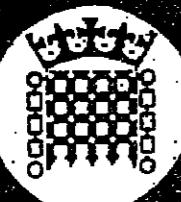
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PARLIAMENT



Left urged to back surcharge Bill

Tories would make savage spending cuts—Sheldon

BY JUSTIN LONG, PARLIAMENTARY CORRESPONDENT

Civil Service pensions protest

BY JOHN HUNT

A PROTEST was made in the Commons yesterday by Mr. Tim Renton (C., Mid-Sussex) that the inflation-proof pensions of civil servants will continue to rise by 15 to 20 per cent, while average pay in the private sector will probably go up only by 3 per cent.

He found this disturbing, and suggested to Mr. Charles Morris, Minister of State for the Civil Service, that a ban must be placed on the annual rise intentions for workers in the public sector.

He pointed out that companies in the private sector could not possibly match these increases.

Mr. Renton had asked whether the Minister planned to reactivate the Civil Service Pay Research Unit, the fact-finding organisation which produced comparisons on which Civil Service pay was based. This work has been in abeyance over the past two years while the Government's pay policies have operated.

Mr. Morris told him that the unit, now with a substantially reduced complement, was engaged in certain duties of a care and maintenance nature. There were no plans to reactivate the work the unit undertook before its suspension. This would depend on the development of national pay policy.

Complaints total

MORE THAN 18,000 complaints were made against the police in England and Wales last year. Dr. Shirley Summerskill, Home Office Under Secretary, said in a Commons written reply yesterday: "The complaints led to 247 disciplinary charges and 128 criminal charges. She said.

MORE THAN one Budget would be required to bring about Britain's economic recovery, Mr. Robert Sheldon, Financial Secretary, stressed in the Commons last night.

"We believe the reduction in the public spending borrowing requirements will have to be achieved over a period by a combination of public expenditure and tax changes," said Mr. Sheldon, arguing the need for the controversial Bill to increase employee National Insurance contributions.

The Bill would raise £850m. in revenue in the next financial year and reduce PSBR by £600m. on Government calculations.

But the Financial Secretary, evidently also looking ahead to the statement which it is anticipated will be made by the Chancellor later this month, told MPs: "Structural change (to the economy) won't be the result of one Budget or one package, but a succession of changes at different times."

The National Insurance Surcharge Bill was an important tax element in that process. But with some Labour backbenchers less than enthusiastic over the Bill, Sheldon warned them that a Tory administration would seek to meet the country's economic difficulties with massive reductions in public expenditure.

"So we must ensure that we don't allow the Tory Party to conduct their savage experiments on the body of British industry," he told Left-wingers who feared that the surcharge on employers would add to the unemployed totals.

Collect

From the Opposition front-bench Mr. John Nott deplored the Bill as a measure which would fall almost wholly on the private sector—the sector of the economy which was already bearing intolerable strains.

The Tories he said frankly, would find the money required out of public spending generally. Indeed, if the Cabinet had been willing to take £2bn. from public expenditure cuts in July, it was more than possible that the collapse of sterling could have been averted.

The surcharge Bill would be more damaging to jobs and to investment than if the equivalent amount had been raised by means of VAT increases.

But Mr. Sheldon, anticipating these challenges to the Bill, said it would not hit investment. Over a period, the increase would be passed on to the public as an Advocate if, in view of the Stock



Mr. Robert Sheldon

failed, the prospects for the economy would be "vastly poorer."

There was no denying that the surcharge, like other taxes, would cause demand in the economy to fall, and this would have some effect on employment, the Financial Secretary acknowledged. "But I emphasise that the surcharge is not a tax on employment as such."

He estimated that by the fourth quarter, the adverse effect on employment might be somewhere about 10,000.

This could be compared with the estimated consequences that would be incurred if the standard rate of VAT were increased to 15 per cent—another way of reducing the PSBR. The VAT method would increase unemployment by 50,000 in the same period.

Not only that, but the VAT change would raise the retail price index by 1.8 per cent, whereas the surcharge proposed under the Bill would increase the index by only 0.9 per cent.

Mr. Sheldon said that other alternatives to the present Bill included a very large increase in excise duties, or higher corporation tax. But company profits had already been depressed by

allowable cost under the Price Code. To that extent, it would not affect profits.

Mr. Sheldon emphasised that the effect of the surcharge—unlike the consequences of an increase in VAT—would be spread "thinly" over the economy.

Although the tax was being collected through the National Insurance machinery, it was not part of the National Insurance system. It would be extremely cheap to collect, with no administrative burden on employers and no new civil servants.

The change takes effect from next April. No contribution is levied on earnings below £13 a week, and the surcharge does not affect employees' contributions.

The Minister said the need to reduce the PSBR was to enable the Government, without increasing inflation or intolerably high interest rates, to provide for the borrowing needs of the public sector and industry.

This was central to the Government's economic policy and it

was the enact-

ment of this Bill will add seriously to the industry's financing problems, will worsen the unemployment level and will hamper improvements in productivity."

The EEF has urged Mr. Callaghan to allow further time for "constructive representations to be made and considered" because the proposed Parliamentary timetable gives a "totally inadequate period for industry to prepare and present its case."

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The Management Page

Ford Motor has made a success of international co-operation by bringing together experts from its world-wide divisions to create its new factory in Spain. Terry Dodsworth reports

The thousand-day Fiesta

EIGHT YEARS ago, when Ford first in Europe was formed as an of control and organisation were more complex. John McDougall, an American who turned its back on development, going on elsewhere in the car industry. McDougall and his team of manufacturing specialists visited Sweden to look at group working methods in factories, and Japan, to see the latest in robot welding. But in the end it has played safe with conventional systems for two reasons.

First, Ford is by no means sure about the new methods. On group technology, for instance, Brand believes that much more work must be done before it becomes generally acceptable; and he thinks that robot welding can be difficult to get right. "A robot never comes late to work in the morning, never quits early and never takes time off. But he gets difficult at times. If you buy a sophisticated robot these days you need doctors to keep him in shape," says Brand.

Quite apart from the technical arguments, however, Ford had a second reason for choosing conventional systems. At Almussafes, it is faced with a long process of growing its own skilled labour from scratch; and it is easier to trust to well-tried methods in this situation than to experiment.

Automation

On the other hand, Ford has for the most automation in areas where the systems are proved: for example, in the engine plant, on work in which machine tools have reached a sophisticated and sound standard. Ford has installed one of the most automated lines in the world, capable of machining well over 400,000 engines a year with very little human intervention.

Because conventional factory methods were being used, key early recruits in the Almussafes workforce could be trained on similar production lines at the Ford factories in Britain and Germany. Their skills were then supplemented in two ways. First, by attracting a small number of émigré Spaniards back from the car production lines of northern Europe; and second, by using the experience of Fiesta production in Germany to help in Spain. The car was launched first at Saarbrücken, where most of the initial bugs were taken out. When it came to Almussafes' turn in October, the senior members of the German launch team came to help. Even at this early stage, Ford believes that it has had a good return on its investment in this largely untried workforce.

Good productivity is more essential than it might appear, because Spain is rapidly losing the benefit to Ford of low wage rates which was one of the reasons for developing there. Workers at Almussafes are paid an average of Pts.320,000 a year (£2,880), and this is expected to go up by 20 per cent in the next year.

It is also clear that, if Ford achieves its objectives, it will have a highly productive plant at Almussafes. The idea is to build up to a total workforce of about 9,000 men (1,800 in the engine plant), producing 280,000 cars and 420,000 engines; and a ratio of 39 cars per man per year compared favourably with

the assembly lines at Almussafes, a vehicle in which Ford has invested well over £200m, along with the ambition of becoming one of the most important car manufacturer in Europe. The Fiesta presented a particular challenge to the Ford of Europe system. It is by far the most important car the group has launched since the organisation was created. The Almussafes project exposed it to two large and, for Ford, uncharacteristic gambles: whether or not the Ford management system, in Spain, would hold together to the actual business of justifying the investment, and structuring the plant; and whether Ford could really produce and sell the planned play. Manufacturing specialists were poured into the country

Hans Brand, 51, manufacturing director at Almussafes, chairmanship of Ford of Europe to take on the group's North American activities, was a constant visitor. The use of experience, reliance on well-established systems, and the avoidance of risk are all characteristic of the Ford management system. In Spain, when it came down, Ford would hold together to the actual business of justifying the investment, and structuring the plant; and whether Ford could really produce and sell the planned play. Manufacturing specialists were poured into the country

from the rest of the Ford empire, creating a temporary manufacturing specialist who of Spain.

Brand, a stocky, ebullient of the motor car in the economy, was one of the key figures in the establishment of Ford's last had to to use 90 per cent. local new assembly plant at Saar components in their vehicles, Louis in Germany six years ago, and were restrained from imports by the main responsibility of foreign machine tools for getting Almussafes off the ground. But as with all big barriers, Ford negotiated a Ford projects, a web of relationships and responsibilities, and a 95 per cent. stretched out from him which reduction in the tariff, and at brought the rest of the Ford the same time tariffs on imports into play. Ford ported components were essentially on management, brought down to 5 per cent. in depth, each man being This meant that it could bring packed by another, and each in its major components—gear, strategic decision being confirmed by a committee.

In designing the manufacturing systems in the plant, Ford's caution was even more pronounced. Almussafes is a magnificent example of a car factory, the company can call on without unduly straining its normal trading activities. The work was co-ordinated concessions, inside to experience through the German Ford of Europe headquarters in Cologne. Virtually every which is responsible for the thing that goes on inside the group's manufacturing activity, has been done in a

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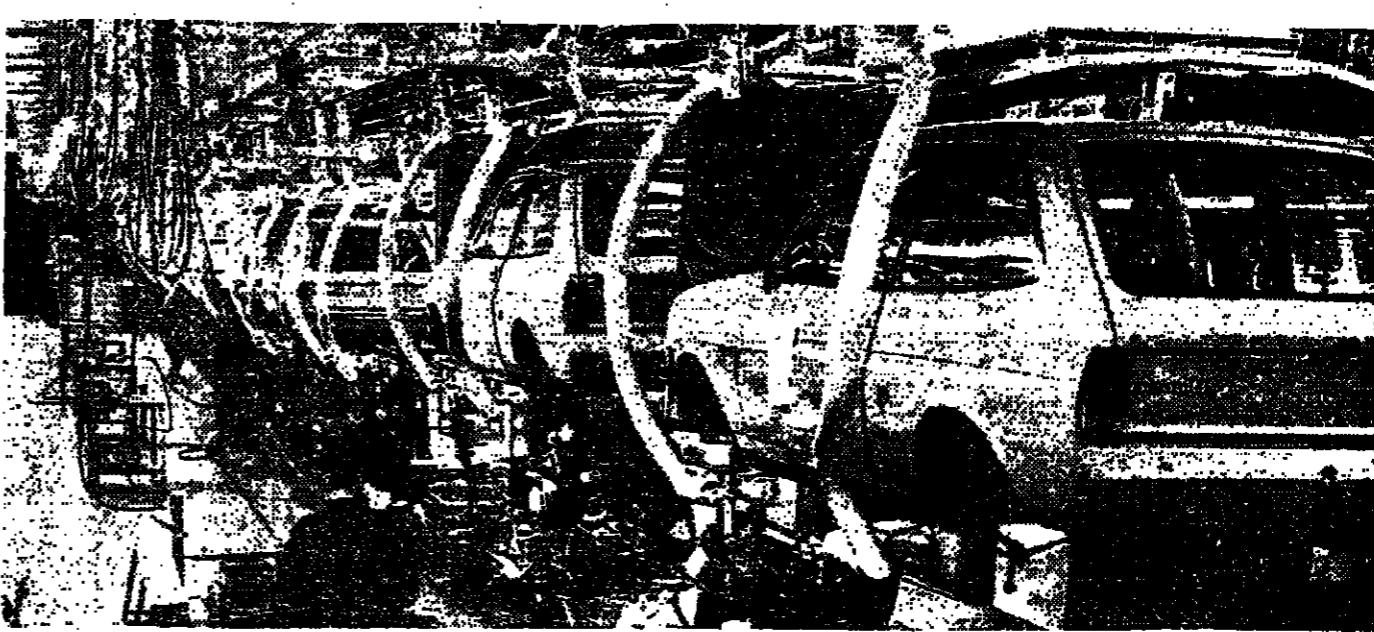
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Fiestas going down the assembly line at Almussafes in Spain. The overhead conveyors are typical of Ford plants throughout Europe.

Diary of the product development

Let's call it Fiesta — The autobiography of Ford's Project Robert, by Edward Seidler, Patrick Stephens Ltd, £4.95

FORD OF EUROPE is at present going through a period of intense activity which promises to make it the strongest all-round force in the European motor industry. We are in one of those spells in which companies spawn ideas, and creative executives are carried along on a high wave of morale which helps overcome the problems and errors which might be critical for other organisations.

To write a book from inside

a company in these circum-

stances presents a rare oppor-

tunity to the industrial

journalist, and Edward Seidler,

the ideal candidate for the sub-

ject. Editor of *L'Equipe*, the

French sporting and motor-

ing journal, he is a graduate in

business studies, and has estab-

lished a reputation as the

leading motor industry jour-

nalist in Europe, as well as being

an accomplished sports writer.

"Let's Call it Fiesta" is written

with all the dash expected of

someone accustomed to writing

for the sports pages. This is

an effective technique for

Seidler's purpose: to produce a

book in which the characters

are presented boldly, and the

issues facing the company

dramatically underlined.

A project like the Fiesta, in

which an enormous amount of

money is being invested at con-

siderable risk, exposes execu-

tives to intense pressure. Seidler

shows how they reacted.

The book is based on a how the extraordinarily com-

plete, but original, idea: to

trace the development of the

Fiesta. Ford's new small car,

from conception to launch, bent at times for a particular

Seidler's background makes him

purpose.

He also makes it clear that of the more complicated facts Ford's Detroit headquarters in the pursuit of dramatic presentation. The reader is left with a vivid impression of Ford: Fiesta programme: Indeed, the but none of the company's Detroit Board almost threw the project at one stage, and kept a close monitoring eye on it throughout. It is impossible to read the book without being aware of the tremendous authority Henry Ford II wields in the organisation. It was he who ultimately steamrollered the Fiesta idea through the Board.

Of course, no motor company would willingly give details of its earnings, of its analysis of comparative labour rates of its estimate of political and social movements in particular countries, or its transfer pricing methods, and then allow these to be written up. But Seidler is irritatingly discreet on these matters, and one knows that he knows many of the answers because he was privy to a lot of secret material.

That apart, the book still emerges as a cut above most things that are written about the motor industry. Most people involved in the industry would enjoy it.

Terry Dodsworth

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TUESDAY, DECEMBER 7, 1976

Centre holds in Japan

JAPAN'S Liberal Democratic Party—the alliance of wealthy politicians, business and bureaucracy that has ruled the country for 21 years—has now lost its single-handed control of the lower house of the Diet even if it scrapes together a majority with the help of independents. The result of Sunday's poll is a far more damaging blow to its prestige than the most pessimistic of the Party's elders predicted at the outset of the campaign. But it does not signal the break-up of Japan's post-war pattern of politics. The LDP has been steadily losing popularity as its rural supporters have shifted to the towns and changed their political allegiance. The party's setback this time has been sharper, both because voters were demonstrating their disgust at the corruption of politics that surfaced with the Lockheed scandal and because they were fighting under a Prime Minister who is opposed by two-thirds of his own party.

Bargaining

But the elections were also a rebuff for the LDP's most outspoken opponents, the Communists, who have lost over half their seats in the lower house.

Neither they nor the other Left-wing parties have a hope of putting together an alternative Government. The most striking advances at the polls were made by the middle of the road groups such as the New Liberal Party—a splinter group of the LDP hostile to "money" politics—and the Komel (clean Government) party. Their success can be taken as a gauge of Japan's desire to continue under a conservative leadership but one without the uglier warts of the LDP. In that leadership the LDP—the party associated with postwar prosperity—will have the biggest say. The immediate issue is what shape it will take in the bargaining of the coming weeks.

Under the requirements of the constitution Mr. Miki now has to resign prior to the election of a new Prime Minister by the Diet before the end of the year. His sin in the eyes of greater public expenditure.

Import prices and sterling

THE WHOLESALE price 2 per cent in November against indices for November are good 1½ per cent. in October, and in parts, bad in others. This though the month-to-month good derives mainly from the recovery of the exchange rate, which caused the average price of sterling to be much the same in November as in the previous month. Thanks to this, the average price paid by manufacturing industry for raw materials and fuel—which had risen by 3½ per cent. in September and 4½ per cent. in November—rose by only 1½ per cent. There has been a slight further improvement in the exchange rate since the turn of the month, which will help the December figures, but the prospect for January, with various international price rises—including one for oil—on the way is a good deal more uncertain.

The overall rise of 1½ per cent. for the cost of industry's raw materials, however, conceals a significant difference between the costs of the food manufacturing industry and of the rest. The rest, with higher world prices for softwood and nickel, experienced a cost increase of imported steel, partly offset by a drop in the price of imported steel, of only 1 per cent. The food manufacturing industries, however, had to pay more for a wide range of imported materials—wheat, coffee, cocoa, oils and oils, dried fruit—and their costs rose during the month by 3½ per cent. Over the past three months their costs have risen by 11½ per cent., despite the fact that they are still being heavily subsidised by the non-devaluation of the "green pound."

Inflation
Such a steep rise in costs must sooner or later be, at least in part, reflected in output prices and the cost-of-living index, whatever Mr. Hattersley does to encourage greater price competition, though the average output price of manufactured foodstuffs rose slightly less in November than in previous months. The output price of buying induced by higher goods other than food rose by prices.

THE JAPANESE ELECTIONS

Japan's newspapers to

day brought out their favourite English word, Shoko to describe the result of Sunday's general election in which the Liberal Democratic Party suffered what is generally agreed to have been the worst electoral reverse in its history. The stock market echoed in papers with a 54 point fall in its first hour of trading. But, by lunchtime the dealers had evidently decided that things were not quite as bad as they looked. The market picked up sharply after its initial fall and by the end of the day was actually some 16 points up on its closing level of the day before the election.

The quixotic behaviour of the stock market and the dramatic newspaper headlines illustrate a common Japanese characteristic. The Japanese are prone to get very agitated indeed about problems which Western countries might accept quite calmly. But then having got over their initial panic they show remarkable skill at adjusting themselves to new situations.

The reason why Sunday's election results has induced the typical Japanese State of shoko or shock is not that the ruling Liberal Democratic Party, a conservative grouping, will henceforth be unable to govern the country. Even with the 249 seats secured by official party candidates in the election the LDP will be easily the biggest group in the lower house of the Diet leading the next largest party, The Japan Socialists, by about 120 seats. By the time some 10 or 12 conservative independents have joined the LDP (as they are confidently expected to do over the next week or so) the party will have at least 260 seats, or four more than a bare numerical majority in the 511-seat house.

In European parliamentary politics this might be considered a perfectly reasonable basis on which to run a Government. In Japan the situation is different for two reasons. First, the process of Government depends heavily on the various committees of the upper and lower Houses of the Diet (parliament). The LDP can only control these committees effectively if it provides the chairman and a majority of ordinary members in each one of them—a requirement which calls for the annual rate of increase in the retail price index, therefore, is unlikely to come down much from the 13-14 per cent. level for at least some months to come and this, combined with wage restraint and fiscal drag, will mean another reduction in consumer purchasing power out of current earnings. The latest figures show that retail sales in volume terms, fell back in October from the higher level of the third quarter (which was itself below the average for 1973 and 1974); on a three-months comparison, there has recently been quite a sharp increase in consumer debt, not only to finance houses (mainly for cars) but even more so to retailers.

Negotiations

For the West, the main significance of the election is that for some while it will be dealing with a weakened, if not divided, Japanese Government.

That will make it more difficult to negotiate issues of world trade because the Japanese Government will be more prey to the lobbying of local interest groups, be they in shipbuilding or the car industry. It will equally mean a Government more reluctant to risk potentially inflationary measures to stimulate the domestic economy—measures which are sought by Japan's trading partners to boost imports into Japan and restrain Japan's export drive.

One of the first tasks before the new Government will be to decide on how fast to press for expansion through tax cuts, a by the Diet before the end of the year. His sin in the eyes of greater public expenditure.

The LDP was founded 21 years ago as the result of a merger between the two major Japanese conservative parties of the day—the Liberals and the in his personal binnacle in the election appear to show

Democrats. It has won every election since that date. Most he was running as an independent after having been obliged to resign from the LDP. Four more of a total of five "grey" established politicians also retained their seats on Sunday, demonstrating that personal loyalties and individual connections still count more in some parts of Japan than do bribery scandals.

Winning elections in Japan is partly a matter of calculating how many candidates to put up in each of the multi-member electoral districts into which the country is divided. If a party puts up too many candidates in one constituency it runs the risk of splitting its own vote, whereas putting up too few candidates will have the fared badly. A member of Mr.

THE FINAL RESULT

	Seats	Percentage of popular vote	
		Won	At dissolution
Liberal Democratic Party	249	265	41.79
Japan Socialist Party	123	112	20.7
Japan Communist Party	17	39	10.37
Komeito	55	30	10.9
Democratic Socialist Party	29	19	4.28
New Liberal Club	17	5	4.18
Independent	21	4	5.71
			3.88

The number of seats was increased to 511 for the election of December 3, 1976. In addition to the groups listed splinter groups, received 0.08 per cent. of the vote, compared with 0.27 in 1972, but returned no members.

effect of over-concentrating the Tanaka's LDP faction in the vote. The opposition, which has traditionally been divided into four highly disparate parties, to the Diet, dropped to fifth place in its four-seat constituency on Sunday. A brand new Liberal Democratic candidate in the same constituency came in fourth. The pattern was repeated elsewhere with results that promise to do serious damage to the strength of the Tanaka faction in the lower house.

The LDP brought this particular election-winning technique to a fine art in 1969 when it put up only 326 candidates for 491 seats in the lower house of the Diet and got 87 per cent. of them elected. The party tried to economise on candidates even more drastically in the election which has just ended. There were 320 LDP candidates in all running for election to the 511 seats in the enlarged lower house of the Diet. But the percentage of successes was far lower than in 1969, and the LDP share of the popular vote plunged by 6.5 per cent. to an all-time low—just under 42 per cent.

There is not much doubt about the reasons. First, the Lockheed affair did serious damage to the party's image, even though some of the more notorious figures involved scored handsome successes in their own carefully-structured constituencies. Mr. Nakaei Tansaka, the former Prime Minister who was arrested last summer and charged with taking a bribe from Lockheed in the day—the Liberals and the in his personal binnacle in the election appear to show

The swing against the LDP was not the only sign on Sunday which pointed in this direction. The results scored by individual LDP candidates in the election appear to show

the Communist failure has been explained in various ways. The party's attempt to "democratise" itself last summer by removing Marxist terminology from its official platform, on the precedent set by the French and Italian parties, seems to have failed to impress the sceptical Japanese public. In any case the beneficiaries of the discomfiture of the LDP were not the parties of the left, but the somewhat ambivalent centre. This is occupied by the Liberal Democratic party which preaches "clean government" and the Democratic Socialist Party, which is strongly anti-communist but linked to organised labour.

The Komeito and the DLP, the former with 58 seats in the new Diet the latter with 20, may not be able to exercise a direct impact on the policies to be followed by a new Liberal Democratic Government. It is unlikely for example that the LDP will make any acknowledgement to the Government for the way it has managed the economy. Real wages have been running below the levels of a year ago, even though Japan appears embarrassingly well off about the reasons. First, the Lockheed affair did serious damage to the party's image, even though some of the more notorious figures involved scored handsome successes in their own carefully-structured constituencies. Mr. Nakaei Tansaka, the former Prime Minister who was arrested last summer and charged with taking a bribe from Lockheed in the day—the Liberals and the in his personal binnacle in the election appear to show

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The Financial Times Tuesday December 7, 1976

The Liberal Democrats' full control of Japanese politics is over

The conservatives get a sharp shock

BY DOUGLAS RAMSEY and CHARLES SMITH in Tokyo



自民党	265
社会党	112
39	12
30	28
19	51
5	25
0	17
4	12
1	9
7	89

A crowd gathered before the election scoreboard set up by Tokyo newspaper watches the election shock building up.

considerable leverage on the afternoon that the Minister would have to go, actions of the Government and its rivals are hardly likely to even produce a situation where an unacknowledged disagreement, although Mr. Fukuda himself seems to be bidding for the leadership of the Government and sections of the time before openly re-stating his opposition.

The man who on the surface appears best qualified to run such a partnership from the centre is occupied by the Government side is Mr. Takeo Miki who has become known for his skill and patience (as well as on occasions his lack of scruple) in striking deals across the central divide between the Liberal Democrats and the progressive parties. One of the reasons why Mr. Miki originally became Prime Minister two years ago was the fear of party elders in the LDP, that if they did not select him for the top job he might actually decamp and form a new alliance with the right wing of the opposition.

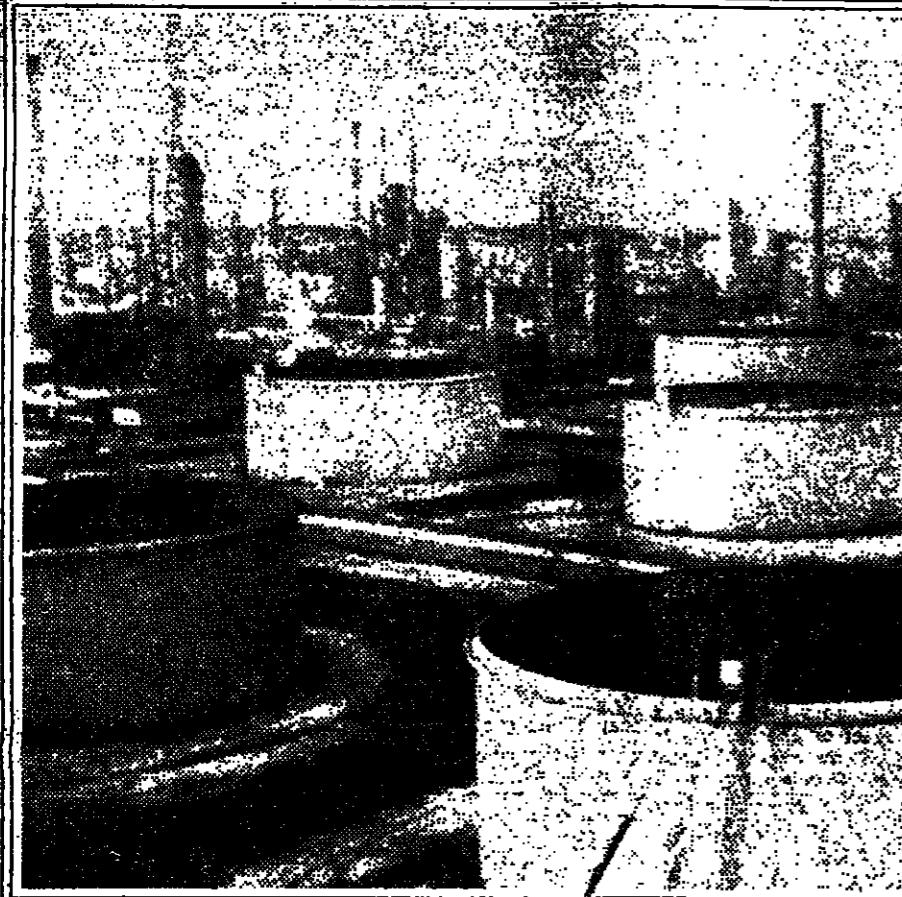
Mr. Miki has never lost his taste for wheeling and dealing but with a vastly greater awareness of interaction between Government and opposition. To be able to indulge it now seems to be on the principle of "divide and rule". The Liberal Democrats are accustomed to years of Japanese politics, has an aversion to the forebearance of Mr. Miki and his 17 New Liberals. This dependence will give the right wing

FINANCIAL TIMES SURVEY

Tuesday, December 7, 1976

Offshore Exploration

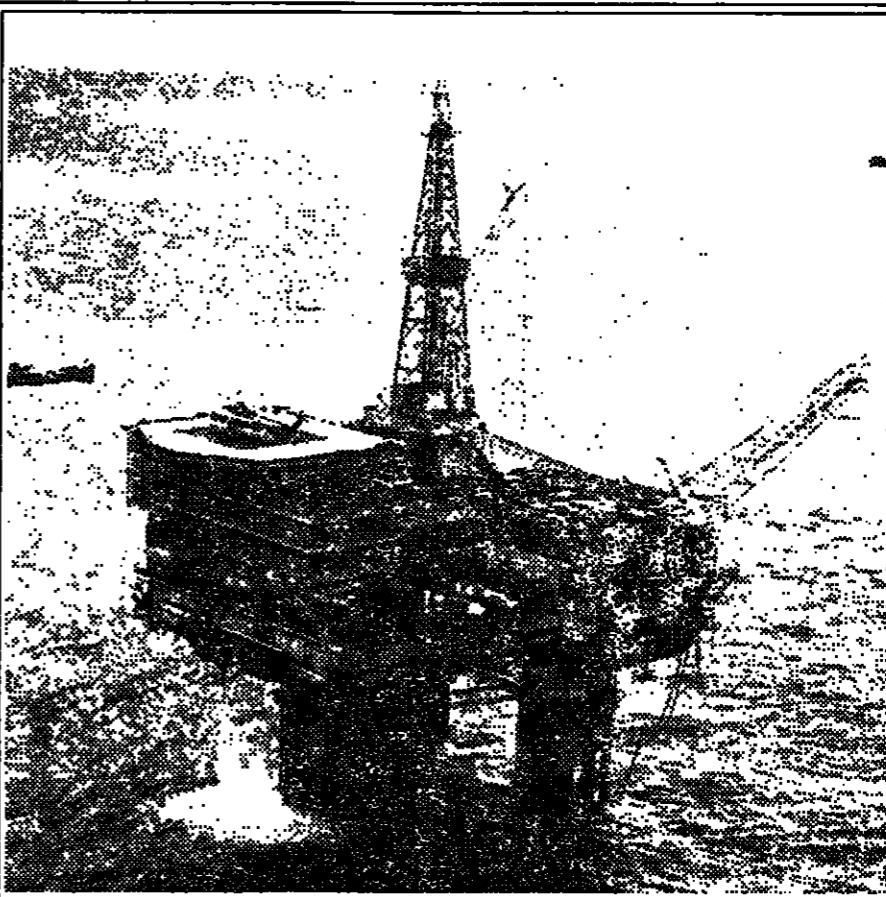
The early reactions to Britain's new oil resources were first surprise, followed by excitement, and then a period of uncertainty. Now, although production is only on a comparatively small scale so far, the country is settling down to take its place among the world's oil producers.



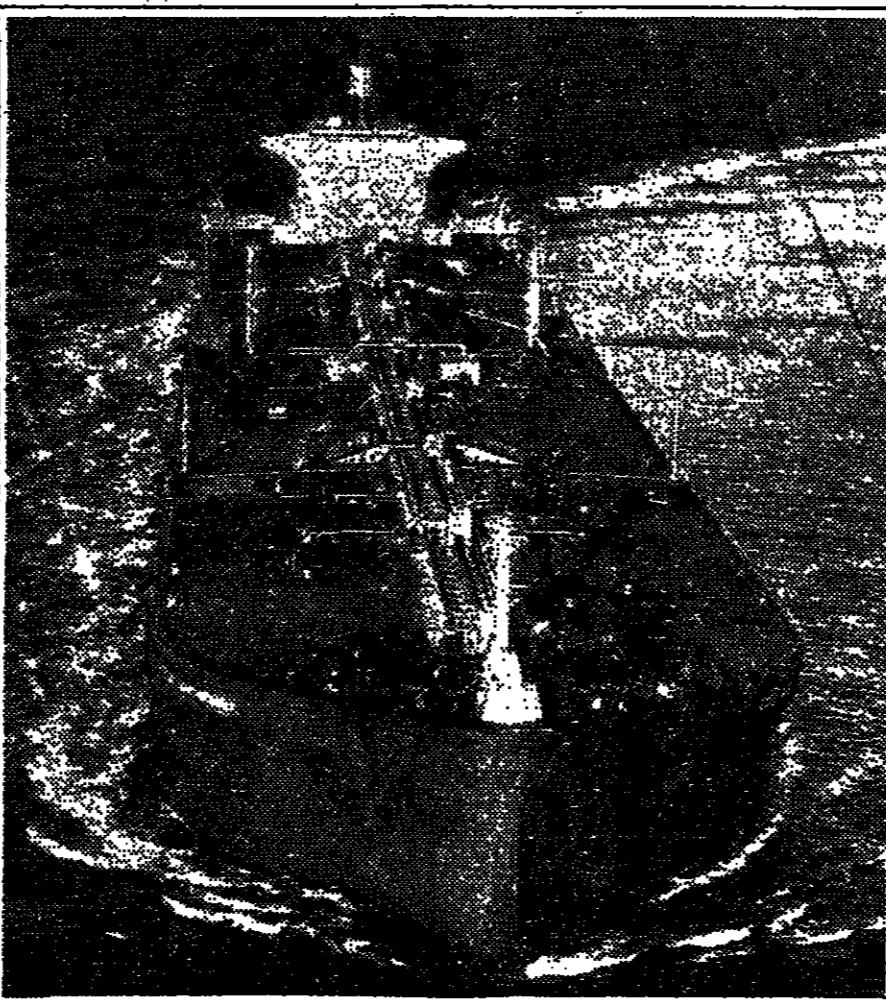
Esso Fawley, Britain's biggest refinery, is capable of producing 13 million gallons of oil product daily.



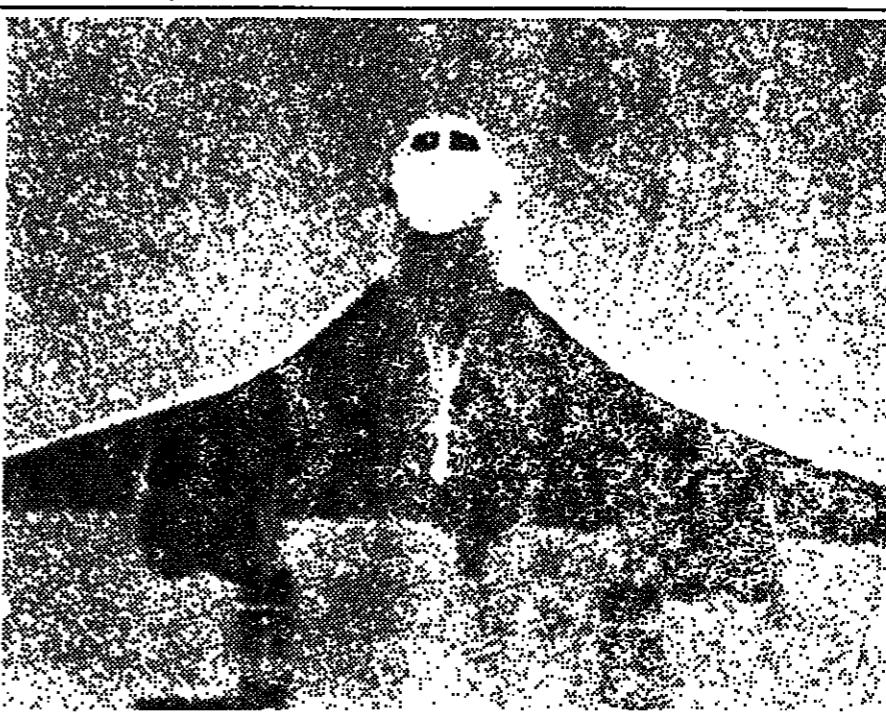
40% of the oil product leaving Esso Fawley travels by underground pipeline.



This month the first cargo of North Sea oil from Brent, the biggest field in the UK sector, will be carried by Esso tanker to Fawley refinery.



The first 250,000-ton super tanker to be built in Britain was the Esso Northumbria.



Every Concorde, whether it flies for Air France or British Airways, depends on lubricants made by Esso.



Esso's business is to find, produce, transport, refine and sell oil and natural gas. The pictures on this page represent some of our achievements to this end.

OFFSHORE EXPLORATION II

An industry moving towards maturity

BRITAIN'S OFFSHORE oil gas to commercial customers industry is maturing fast. With seven fields on stream, North Sea production—and crude oil exports—have built up to significant levels. On the political front, many of the issues have become clearer this year following the formation of the State controlled British National Oil Corporation and the passage of the Energy Bill. And yet, on balance, it seems that time and experience have tended to confirm, rather than improve the North Sea's promise.

The most encouraging indicator of what might be achieved came from British Petroleum which, with a fanfare, announced that it had upgraded the production profile of its important Forties Field by 25 per cent. Providing there are no major snags, the field's output should reach its peak of 500,000 barrels per day by the end of next year. Taking 1977 as a whole, Forties' production should average 450,000 b/d, equivalent of about a quarter of Britain's oil requirements and worth over £1bn. in foreign exchange at present prices.

The Prime Minister, Mr. James Callaghan, has estimated that overall crude production from the British sector of the North Sea next year will be between 700,000 b/d and 800,000 b/d; between one-third and one-half of the nation's requirement. Energy self-sufficiency in 1980 now seems assured; it could well be reached in 1978.

At the same time, the development of offshore gas has reached the stage where it is already meeting about 99 per cent. of U.K. demand. It is an achievement that should save £2.35bn. on the balance of payments this year and possibly £4bn. in 1980. Thanks to fine weather, the development work on the Anglo-Norwegian Frigg Field, which will greatly boost gas supplies, has progressed well. Consequently, British Gas has begun negotiations for the sale of Frigg.

Mr. Leslie Pincott, managing director of Esso Petroleum, gave much the same message in a November speech in which he claimed that the North Sea oil venture was a "mortgaged bonanza". Oil and gas production would reach a peak in the mid-1980s.

This production, he said, would provide the country with a useful breathing space in which to solve its fundamental problems. "Unless we improve our basic economic performance in manufacturing industry, we will still be facing economic collapse when the oil begins to run out."

The speech was timely for not only did it coincide with the visit of the IMF loan negotiators but it was also made at option arrangements under par-

ticipations. No doubt these were raised by Mr. Callaghan in talks with the International Monetary Fund. He probably went out also that in 1980, when Britain will rank alongside Kuwait, Iraq, and Nigeria as an oil producer, the net balance of payments benefit of North Sea crude could be almost £6bn. The estimate was contained in an Economic Progress Report published by the Treasury and broadly supported by other recent studies. The Treasury also forecast that the benefit in 1985 could be as much as £16bn., although this figure is much more suspect.

Professor Colin Robinson and Dr. Jon Morgan, of Surrey University, warned fortnight ago that careless management of the economy could erode these benefits. In a Trade Policy Research Centre report, which forecasts a balance of payments boost of between £9.1bn. and £12.2bn. in 1983, the two researchers maintain that "if the potential gains are to be realised, the quality of economic management in the British Government will have to be as good as it would be in the absence of North Sea oil."

The Corporation is to become a 51 per cent. partner in all future licences (except in those where the State interest is represented by British Gas). It is a commitment which is likely to stretch the Corporation's management ability to the utmost, a prospect which is concerning many in the oil industry. Company executives are also worried about the way the State corporation will handle and use the mass of confidential information that will fall into its hands; how it will resolve possible conflicts of interest; and how it will use the large amount of crude which will come its way either by right or through Shell/Esso's Brent Field, for

example, is costing well over £2bn. to exploit; if the Pan Ocean group decides to go ahead with the development of its promising Brat Field, the cost could well exceed £1bn.

So far BNOC has shown no passion to become involved in the refining and marketing end of the oil business but this expansion could well come in the 1980s. In the meantime, BNOC staff will learn about downstream activities through an agreement with BP (again part of a participation package).

The industry's concern is real and not merely a political bargaining ploy. At present companies are not sure how much of North Sea oil will be used by BNOC, either in a role of crude oil trader or, ultimately, as an integrated oil company. They are not sure how much of Britain's oil will have to be refined in the U.K. and how much would be allowed out as crude exports (recent Government statements on this subject have failed to clear the air). And they are still uncertain about what depletion policies the Government might apply in the 1980s in order to conserve the precious resource. Given their way, the Scottish Nationalists would like to eke out production for 100 years—a proposal challenged recently by Dr. Mabon who argued that such a policy could kill North Sea development, an encouraging statement from the oil industry's point of view.

It would be glib, and wrong, to suggest that these political uncertainties are the main reason for the two-year hiatus in offshore production platform ordering. They are just one of the sets of influences.

After the first rush of activity, companies have been anxious to re-evaluate, both the economic and technical factors of field development. The two are inter-linked for modern production methods—like subsea well completions, floating production and storage systems, and tethered-legged platforms—can help to tame development costs.

Shell/Esso's Brent Field, for

example, is costing well over £2bn. to exploit; if the Pan Ocean group decides to go ahead with the development of its promising Brat Field, the cost could well exceed £1bn.

What the Government can rightly claim to have achieved is that it has established a legal and fiscal regime that shows fair promise of providing a solid foundation for future development. In partnership with private industry, North Sea development has been so rapid that over the past 16 months seven commercial fields—Argyll, Ank, Forties, Montrose, Beryl, Brent and Piper—have been successfully brought into production.

A new industry has sprung up to make this possible. With it, many thousands of jobs have been created—particularly in Scotland—which badly needed in the need.

There can be no doubt that North Sea resources are of the greatest importance to this country's economy. Production of oil is now some 56,000 tonnes a day worth £200m. a day, equivalent, as an annual rate to almost one quarter of the U.K.'s current consumption.

Exploration drilling this year has given the platform industry, and others in the offshore supplies business, only modest encouragement. By the end of November 13 significant oil discoveries and two gas finds had been made by the industry against 24 discoveries in 1975.

It is too early to judge the commercial potential of these finds—although one, by the Maersk group close to shore in the Moray Firth, looks promising. Oil production in that year would be worth £5.7bn. to £6.9bn. at today's prices, representing a vast saving which would otherwise have been spent on importing the equivalent amount of oil. Indeed, in 1977 oil production is estimated to contribute a net benefit of some £2bn. to the overall balance of payments, thus dramatically changing an overall deficit into a surplus.

There are substantial direct benefits too. Not least of these is the revenue which will accrue from taxation. On the basis of the current price of oil and the latest cost and production forecasts, the combined yield from royalties, PRT and Corporation Tax to the end of 1980 is expected to be in the region of £3.5bn.

Although there is still a good deal of oil and gas to be located in the currently designated areas, in particular the northern North Sea, the country's main hope of improving on those 3bn. to 4bn. figures lies in deeper waters, to the North of the 62nd parallel and to the south west in the Western Approaches. Although the south western area has been included in the fifth licensing round, the Government has deliberately avoided moving too close to the disputed boundaries between the U.K., Ireland and France.

The boundary issue should be settled next summer. It could mark the beginning of a new and exciting chapter of development in Britain's offshore oil and gas venture.

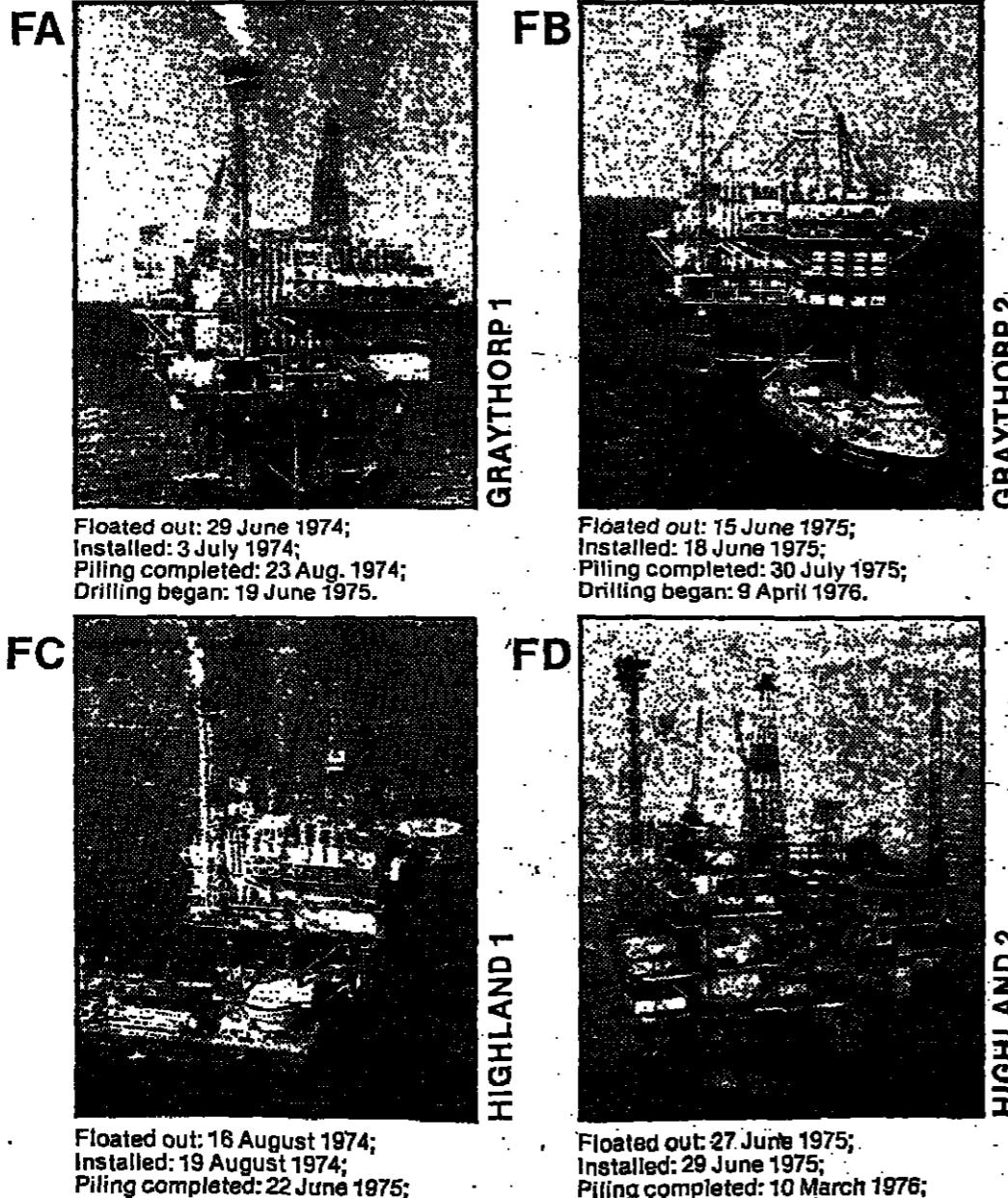
Ray Dafter
Energy Correspondent

Forties Field Report:

Fast work brings Britain's North Sea oil ashore

Brown & Root's fast work for BP in the rugged North Sea has paid off. The design, fabrication, installation, and equipping of all four structures were included in Brown & Root's project management duties for the field.

BP's new complex, now in production, will be producing 500,000 BPD of crude oil in 1977 when the facilities are completed.



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THE GOVERNMENT VIEW

By Dr. J. Dickson Mabon Minister for Energy

THE UNITED KINGDOM'S achievements so far in the North Sea are impressive and it is still early days. The Government confidently looks forward to even more discoveries of hydrocarbons and more commercial fields.

What the Government can rightly claim to have achieved is that it has established a legal and fiscal regime that shows fair promise of providing a solid foundation for future development. In partnership with private industry, North Sea development has been so rapid that over the past 16 months seven commercial fields—Argyll, Ank, Forties, Montrose, Beryl, Brent and Piper—have been successfully brought into production.

Under the terms of the Fifth Round of licensing, BNOC will be a 51 per cent. partner in all licences which are granted. In this way the Government is both promoting and protecting the national interest.

The Fifth Licensing Round is smaller than any of the previous rounds, and is the beginning of a more orderly policy of licensing smaller amounts of territory at more frequent intervals. In this way the Government is attempting to achieve a more even flow of North Sea equipment orders and work. The Round has attracted tenders from 133 companies—either individually or in consortia.

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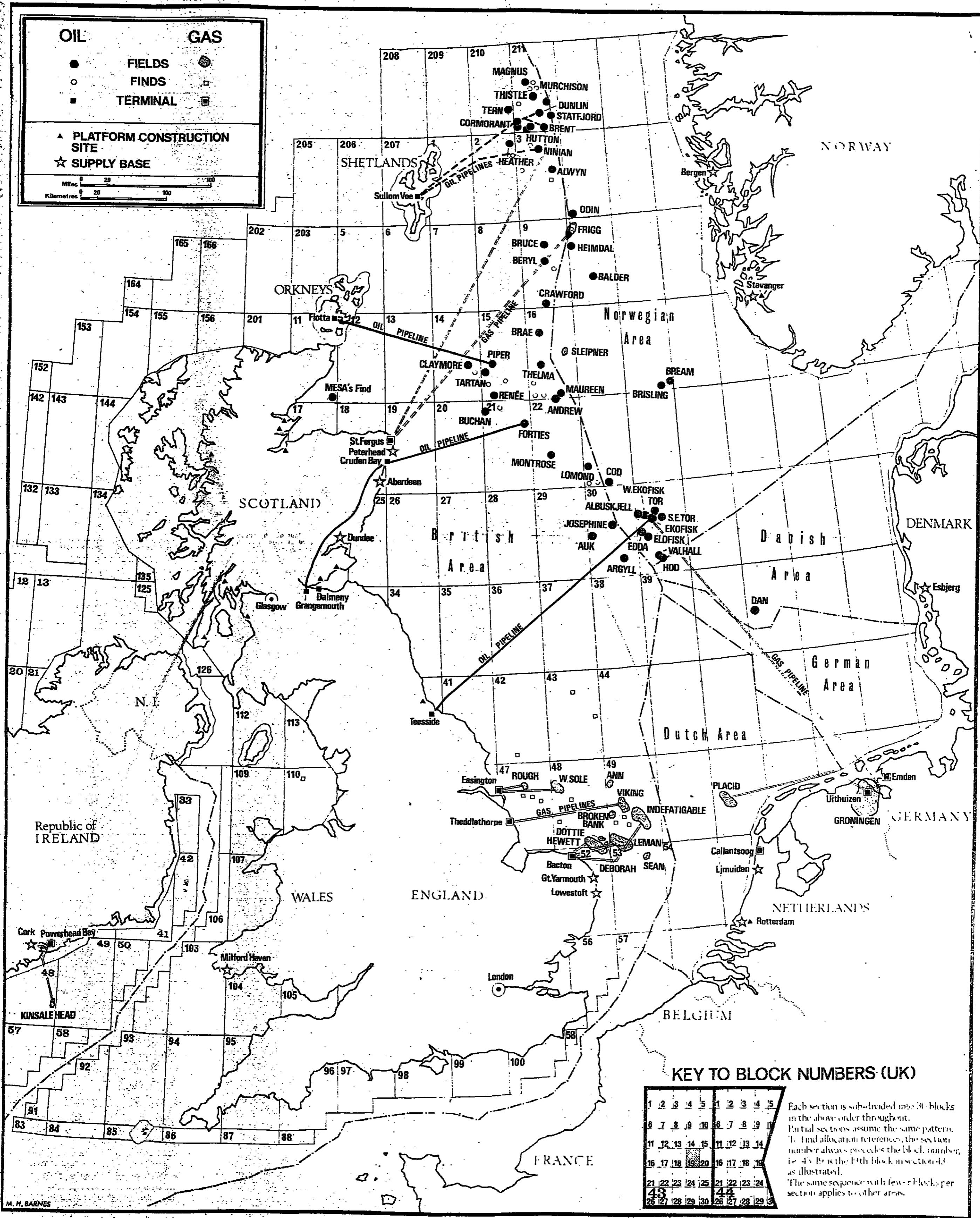
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OFFSHORE EXPLORATION III

THE NORTH SEA 1976



OFFSHORE EXPLORATION IV

Commercial finds are running out

IN COLD statistical terms, the gramme. The reservoir was Phillips is continuing to explore boundary into Conoco's block. The reservoir was found in August and within a couple of months the Mesa group should have completed two appraisal wells which will have tested the size of the structure. Set against the normal drilling ventures, the timescale for oil explorers. The records show that in northern North Sea waters, the odds of an exploration well finding at least some hydrocarbons is less than four-to-one. Worldwide, the chances are nearer eight-to-one.

According to the U.K. Offshore Operators Association, more than 230 exploration wells have been drilled in the area since 1967. In 1973 these "wildcat" operations resulted in 24 discoveries of oil, virtually as many as in the previous five years of exploration. So far this year there have been 13 more oil discoveries, including one—by the Mesa group close to the Scottish coast—which seemed to take most of the industry by surprise.

But these figures flatter the North Sea. Many of the finds are so small that there is little hope of them being developed with present-day technology.

Another group—the so-called "marginal" fields—will only be developed in the light of new commercial confidence among oil companies. That confidence will come only with fiscal incentives and an adoption of present-day production technology.

Breath

It is significant that in the past two years no new oil field has been declared to be commercial. After the first rush of development, oil companies have stopped to take a breath and assess the financial risk of field exploitation. Even fields which, on paper at least, could show an internal rate of return of 25 per cent or more, have been held up while operating companies assess the impact of changing costs and technology.

Consequently, to date only 15 of the 62 finds can be regarded as commercial propositions although a few more should be added to the list next year. How many of this year's exploration successes reach the development stage is a moot point: as one might expect, experiences have been mixed.

On the face of it, Mesa's find on block 11/30 looks to be one of the most exciting prospects to emerge this year, although such a statement is dangerous at this stage in the appraisal pro-

cesses, the real fun will probably be deferred to later licensing rounds.

The oil companies may not have too long to wait for some of these "plums" to be put on offer. The Department of Energy has said that it plans to have smaller, but more frequent licensing rounds in future: the sixth round could well be announced next year, for instance. In this way it is hoped that future exploration and development programmes will be smoother. The move, if it succeeds, should be welcomed by drilling rig owners, platform-builders and the offshore industry in general, for they have all suffered by marked changes in North Sea activity in the past couple of years.

Looking at the North Sea, south of the 62nd parallel, it is particularly attractive because, and Theima, the Hunt/Viking almost certainly, the operators appointed, failing to encounter through the nearby Ninian production system.

It is almost unbelievable. Wells

can take several months to drill; they can cost £5m or more apiece whereas in the early 1970s they would have cost little more than £1m.

But Mesa's discovery is no ordinary find. It lies in the Moray Firth, just 12 nautical miles from land in a mere 150 feet of water. It has been suggested that even if the field had proven reserves of oil in the 20m. to 70m. barrels range a commercial case for development could be made. Recent industry estimates—albeit unofficial speculation—have put possible recoverable reserves at nearer 500m. barrels, however.

So far the 11/30 experience has been a pleasant surprise, catching even the most seasoned offshore groups like British Petroleum unawares. Other companies explored in the area, but without success. Maybe they did not drill deep enough.

Mesa and its partners (they include the P & O shipping group) encountered oil-bearing Jurassic sands in the interval from 6,060 feet to 8,370 feet. The nearby dry holes failed to reach such depth.

Companies trying to find oil on the promising Brae oil field have had to contend with the more normal North Sea surprise—that of disappointment. At one stage, very early in the exploration programme, some industry commentators were proclaiming Brae to be the biggest find in the North Sea (the Norwegian sector included). On current evidence, this is clearly not the case; it is now difficult to see Brae ever coming near the size of Statfjord.

But Brae could have potential recoverable reserves of about 900m. to 1bn. barrels, putting it on a par with Chevron's Ninian Field. What is not clear is how much associated oil there might be to the south of what is believed to be the same geological trend.

Phillips found oil on its block 16/17, some 25 miles to the south, but subsequent drilling has proved unsuccessful. The nearby dry holes failed to reach such depth.

Promising

It is quite likely that some of the finds made this year will eventually fall into this category. Apart from Mesa's discovery, one of the most promising exploration ventures this year has involved the Chevron Group on block 3/7. Last month the operator announced it had made a second discovery on the block, lying some 90 miles north-east of the Shetlands. Chevron has said little about the commercial significance of the two wells but within the industry it is believed that the tests went to obtain a foothold in that some way to confirming a small area, if only to gain more to medium sized accumulation formation about the geology. As

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Further to the West, the Government has finalised the industry by offering blocks in the Western Approaches which are between two busy shipping lanes, they might give the operators the impression they are drilling in Piccadilly Circus.

Companies may well be tempted to see Brae ever coming near the size of Statfjord.

It is believed that the blocks on offer lie on a promising structure although situated as they are between two busy shipping lanes, they might give the operators the impression they are drilling in Piccadilly Circus.

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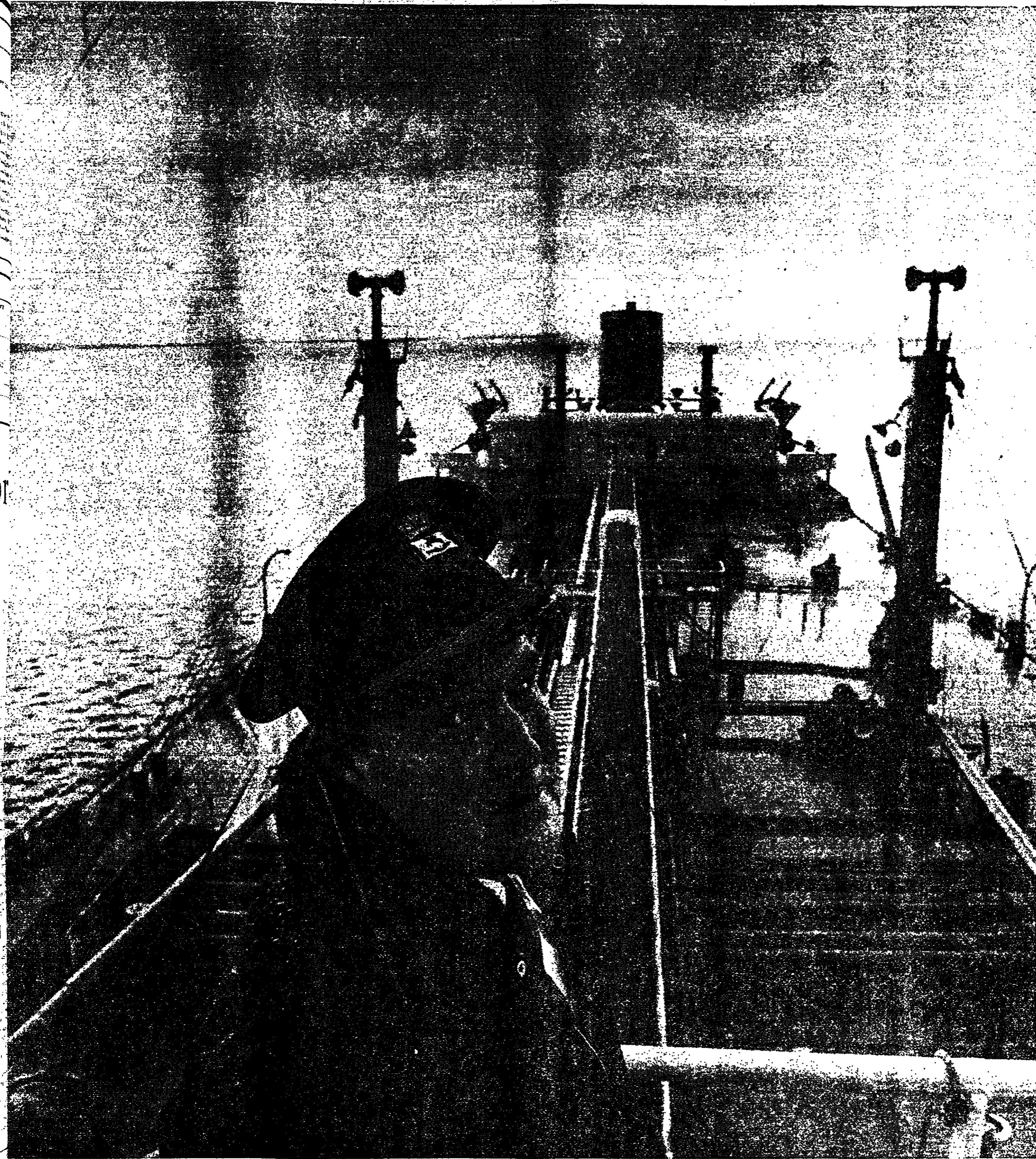
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Photograph: Gus Wyllie

David Anderson: "at home" in the North Sea.

For most people, the North Sea is not the most inviting stretch of water in the world. But Captain Anderson grew up in the Shetland Islands. It's home to him. So is a tanker-like the one you see him on here.

David Anderson has been on tankers since the end of the second World War. He's served as a Mobil master for more than 16 years. He has sailed all over the world; but the trips he's making now in his home waters are among the most important of his long seagoing career.

The captain's current assignment is to bring North Sea oil from the Beryl A platform, about 100 miles southeast of his own Shetland Islands, to British ports. These shipments from Beryl A began this autumn. When all the wells have been drilled and everything is humming along at peak rates, Captain Anderson's tankers will be delivering about 5% of Britain's oil needs. That's a sizeable amount. And together with all the other oil coming in from North Sea fields, it represents a very

promising start on petroleum self-sufficiency for this country.

Some of the oil will come in by pipeline, but a good share will be carried on tankers like Captain Anderson's.

Whichever way it arrives, it will be welcome, we know. We're happy to play a part in North Sea production, and glad we have skilled professionals like David Anderson to bring the oil home.

OFFSHORE EXPLORATION VII

Fifth round contest

THE FIFTH round of licences, currently being awarded by the Government, marks the beginning of a new era in offshore exploration. It is the first round to be offered since the 1973-74 energy crisis emphasised the importance of North Sea oil to Britain; the first to be awarded in the light of U.K. oil producing experience; the first to employ the Labour Government's principles from the outset.

The industry's response to the round is much smaller than previous ones: a deliberate move by Mr. Anthony Wedgwood Benn, Energy Secretary, who wanted to initiate a series of modest but more frequent licensing rounds in order to encourage a more even spread of activity. Consequently only 71 blocks and part blocks were put up against 1,102 blocks in the second (1965) round, 960 in the first, and 421 in the fourth, allocated some five years ago.

Although the offshore industry felt that there were only about a dozen of the 71 blocks containing really promising structures, the fifth round was

made attractive enough to encourage 133 companies to submit 53 applications for 50 of the blocks. In discussions with the Department of Energy, some companies have offered to explore in a few blocks not favoured by applications providing, I understand, some of the more enticing structures were included in the package of licences.

Wrangle. The industry's response to the fifth round was better than many had expected, in view of the State participation proposals embodied in the licensing conditions. But the Government cleared one of the big obstacles when it agreed that British Oil Corporation, as a 51 per cent partner in virtually all the licences, should pay its way during the development phase. Originally it was planned that BNOC could opt to have a carried interest in development work, merely paying back its company partners (with interest) its share of the expenditure once oil had started to flow. From the Treasury's point of view, it was an attractive plan.

Drilling

CONTINUED FROM PREVIOUS PAGE

ires that were too broken up have been generated, or cooked contain much oil. Mesa's find, in a "kitchen" in that direction, is that much more promising. Only further drilling can tell and, in view of the water depths, it seems a prospect for the next decade rather than this.

Going south, the Gas Corporation's gas field discovery in the East Irish Sea Basin off Liverpool is very encouraging and probably much better than the Gas Corporation admit. But it is not a large Basin, while Amoco's return of its licences to the west suggest that it may be a rare example of a one or two-structure Basin.

Another interesting and potentially important new play has been that along the buried cliff where the Brae oil field and, more recently, Phillips' Thelma discovery lie to the south. The results of a series of wells drilled along this prospect have been varied. As far as can be made out, the oil does not lie as might be expected right up against the cliff but a little way back from it, at considerable depths where the quality of sand is not always good. The results of some of these, such as the third on Brae and the first on Thelma, have been surprisingly good with large oil columns. The results of others, such as the fourth on Brae and the Hunt well on 16/12, were not so good. The commercial potential is still here, but so is the fear that the oil may be discovered in a series of pools along the cliff (the Fladen Ground Spur), other than in elongated fields raising considerable problems to production costs.

A third development of exploration interest in the North Sea must be the succession of gas and gas-condensate discoveries along the lower half of sectors 14 and 15 by Phillips' Renes discovery, Texaco and Conoco. Little has been released about the finds and the discovery of condensate clearly raises commercial problems all of its own. But reports in the industry suggest that the finds have been made in the lower retaceous horizon in an area where the source rocks lie at considerable depths. The retaceous layer present in the sea is not vast but, if the results are right, the finds obviously raise interesting new prospects.

Added to these three "plays" is the fascination that must still surround the Transworld carbon discovery in fractured Devonian ground. Again, there is not a large number of prospects where the Devonian is overlaid by Jurassic, in this way—never mind the problem of production from fractures, let it be interesting.

Against this, however, must be the disappointment of Shell and Exxon's separate drillings north-east of the Shetlands off the Continental Shelf, where prospects were once considered right.

Outside the North Sea off the western coasts of Britain, the picture is rather less mature or certain. West of the Shetlands, Shell in a joint well with Total has at last drilled the other side of the median ridge, following the series of extremely disappointing wells along the ridge and in the basin on the nearer side. The well was not a commercial success, but nor does it seem (against the secrecy of the partners) to have been uninteresting either. What it appears to have shown is that the geology on the other side of the median ridge does differ considerably from the near side. What it does not appear to have shown is whether the unexplored area going into very deep water that side towards the Faroes (where the oil may

BNOC could sidestep the need for heavy expenditure and need for trade union representation to obtain access to concessions. It is quite likely that they are willing to sign. Furthermore, in recent letters to fifth round applicants Mr. Benn has hinted that he also expects companies to concede state participation in fields as yet unproven—that might be exploited under past licence rounds.

that they will recognise the next year before deciding to extend the Western Approaches producing evidence to show that this area, along with more blocks in the Moray Firth, will be used to attract most interest in the sixth round, the details of which could well be announced on the second half of next year.

Successful applicants should hear within a matter of days (if they have not already heard) which blocks are being allocated to whom. Some groups have been asked if they will share concessions, particularly where structures spread into more than one block. This can be interpreted as a sign that the Government is trying to keep as many groups as possible happy and interested in the offshore venture.

Most of the interest has centred on the Moray Firth area where Mesa's recent find may have whetted some appetites. The English Channel and Western Approaches although here the fifth round block only skirt the edges of the most promising structures.

The Government is waiting for the boundary disputes with an undertaking by operators France and Ireland to be settled heads of agreement for participation in existing finds or

blocks offered:

3/9*, 3/10*, 3/14*, 3/24*, 9/9*, 9/10*, 9/14*, 9/15*, 13/13, 13/14, 13/15, 13/18, 13/19, 13/20, 13/27, 14/11, 14/12, 14/13, 14/16, 14/17, 14/18, 19/2, 20/3, 20/6, 20/7, 20/8, 20/9, 23/16*, 23/25*, 30/17*, 30/19*, 83/22, 83/23, 83/24, 83/25, 83/27, 84/16, 84/17, 84/18, 86/13, 86/14, 86/15, 87/6*, 87/7*, 87/8, 87/9, 87/10, 87/11, 87/12, 87/18*, 98/11*, 98/22, 98/23, 106/10, 106/15, 106/20, 106/29, 107/10*, 107/11, 107/15*, 107/16, 107/21, 110/1, 110/9, 122/10, 122/15, 133/6, 133/11, 210/10, 211/6.

* Part blocks.

safe enough ground on which to be taken so slowly and demand BNOC presence in all quiet surroundings all participation talks. Mr. Benn may not be taking big steps but he is moving.

The offshore industry has the ultimate answer to what it describes as "creeping nationalisation," however. It can opt out of the North Sea. But such a move would be made only in desperation. After all, the U.K. Continental Shelf is one of the most attractive exploration areas in the world, and the Government knows it.

The industry shows signs of becoming increasingly uneasy about the "creeping" nature of government controls. The response was a "most encouraging" indication of world interest in British offshore oil and gas resources and a clear indication of the confidence that exists in the Government's oil policy." Whether the statement was made with tongue in cheek has not been revealed. The response to the fifth round shows that recent legislation and licence conditions are not undue deterrents to continued exploration and development. Whether the sixth round proves to be equally attractive remains to be seen. But with the Government's new policy of frequent allocation, we may not have to wait too long to find out.

R.D.

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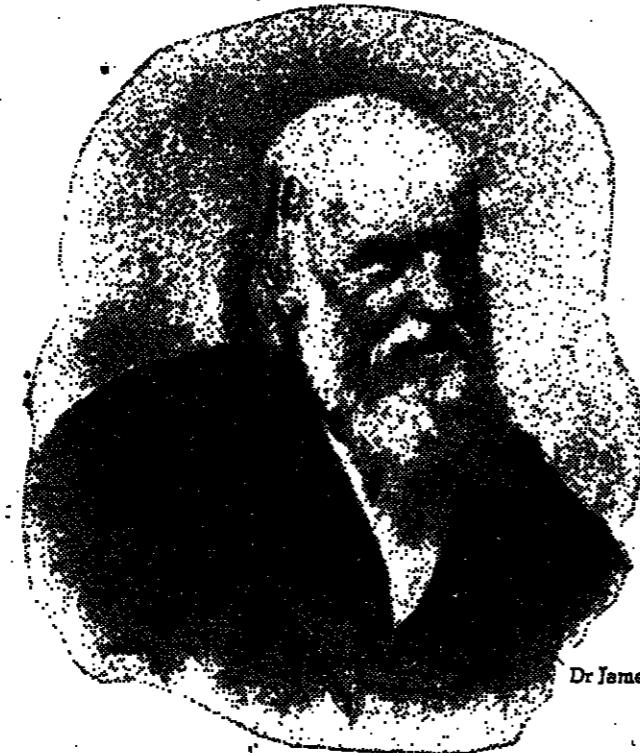
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OFFSHORE EXPLORATION VIII

Production begins to make its mark

IT WAS NO accident that British Petroleum and the Government made such an issue of the upgrading of Forties Field production. North Sea oil is one of the more positive and optimistic aspects of the British economy at present and at a time in October when the value of sterling was slipping badly those carefully orchestrated announcements were fully justified.

Mr. David Steel, BP's chairman, confirmed what many in the oil industry already knew, that the Forties Field could yield oil at a maximum rate of 300,000 barrels a day, some 25 per cent more than the original plan. This level of output should be achieved by the end of 1977, the revised productivity means that next year output should average 350,000 barrels a day, equivalent to about a quarter of Britain's oil requirements and worth over £1bn in foreign exchange at present prices.

Little wonder, then, that Mr. Anthony Wedgwood Benn, Energy Secretary, chose to emphasise the good news. "This achievement confirms the contribution that North Sea oil is making to the strengthening of the British economy."

It is tempting to read too much into BP's experience on Forties, however. Mr. Steel pointed out that the original estimate of 1.8bn barrels of recoverable reserves had not been changed. This figure is based on recovering 45 per cent of the 4.8bn barrels of oil in place whereas earlier reports suggested that BP was expecting only a 40 per cent recovery factor from total reserves of 4.5bn.

As things stand, the BP statement means that reserves will be exploited much more quickly than expected. It is likely that maximum production can be sustained through 1978 and 1979 falling slightly to perhaps 300,000 barrels a day in 1980 and 200,000 b/d in 1981.

Whether the recovery rate can be improved even further largely depends on the financial attraction of using third-stage recovery techniques: steam or carbon dioxide injection, for instance.

These are early days for such speculation, however. It may be some time before a clear picture of the reservoir size and recovery characteristics emerge.

The early signs are encouraging but it must be remembered that less than one fifth of the planned 106 recovery wells are at present producing oil.

Considering that BP has been breaking new ground with the development of its big, deep water field, the Forties venture has progressed remarkably smoothly. It would be dangerous to assume that other development programmes will hold similar pleasant surprises, however. Experience to date shows, if anything, that the opposite is true.

Forecasts

In spite of Forties, North Sea oil production viewed on an annual basis is running below even the lowest Government estimates. In April, the Department of Energy, in its "Brown Book" forecast that between 15m. and 20m. tonnes of oil would be produced from the U.K. Continental Shelf this year. The latest estimate is 13m. tonnes.

By the end of this year seven fields should be on stream: the small Argyl, Ault and Montrose fields are making a useful, if somewhat limited contribution to Britain's energy needs. Occidental's Piper Field is starting too late to have any real impact on this year's North Sea flow rates. That leaves 400m. barrels, although output through one platform and one Point yard, will not exceed 400m.

Mobil and its partners recognise that the decision to develop Beryl was taken on the basis of a modest appraisal programme, a plan whereby the basic platform is helping to answer many of the questions about the field's structures to be fitted. In this

characteristics. On the other hand, Beryl was developed to the field in a near complete state. Alternatively the group could

use the time-table as a surprising, particularly as it has already set up a team to work on the development of the Cormorant structure. But Wood, Mackie explains that Shell is giving priority to moving the plant in place and hooking up Brent pipeline.

The platform ordered Cormorant will not only produce oil from the field but also act as a pumping and storage unit for the group of discoveries in the Brent area. Consequently under development Cormorant could affect the production profiles of other Brent (already on site) and possibly Thistle.

Decision

British National Oil Corporation's Thistle Field (operated by Esso) is due to start producing next year. However the partners have already ordered an offshore loading system. A decision was taken some ago in case of problems with the pipeline or the Sullom Voe reception terminal. It is to be a wise move.

For the time being Brent is also being produced through an offshore loading facility which can feed oil into one of two 70,000-ton tankers at maximum rate of 5,000 tons an hour.

Brent is the largest field discovered in U.K. waters. It contains an estimated 2.5 billion barrels of recoverable reserves—including some 600m. barrels of condensate and natural liquids—and perhaps 3.5 trillion cubic feet of gas.

The field is costing \$2bn. to develop, a fair chunk of the £1.5m. a day it

Shell and Esso are spending the North Sea. Indeed, the development of the 15 fields now recognised as being commercial ventures, accounts for the biggest part of the budget that is now being invested by the oil industry as a whole over £12bn. between 1976 and 1980 alone. And, provided there is much more to come

Winning more of our market

BRITISH INDUSTRY has been winning well over half of the £1bn. worth of orders arising from the North Sea oil and gas programme this year and it has long been hoped in Government that British companies could increase this to over 60 per cent within a few years.

But this performance, in many ways encouraging, has been achieved against a background of a falling market and many of the promises that bloomed in 1974 after the oil crisis have failed to reach fulfilment. Many of the sums

involved are "reasonable possibility," according to Dr. Dickson

Minister of State for Energy, of only four of five platform orders being placed by mid-1978, plus an expected

of emptying order books, order for a floating production-closing yards and mounting system from the Transworld

redundancies.

With the market from the Buchanan field. Back in 1976 the North Sea still declining—it is Government forecast that at more than two years since an 80 large platforms would be needed for the U.K. sector conventional platform for the by 1980 and eight construction yards were sanctioned in Scotland and the North-East for orders.

Now latest estimates to come from the Department of Energy suggest that there could be to £6bn. world-wide over the next decade according to Mr. Jim Wilks, chief executive of the British Overseas Trade Board. He firmly believes that the supplying industries are now well-equipped to sell overseas, having acquired a considerable knowledge of the technology of offshore oil and gas exploration and exploitation.

Such methods as floating systems, tethered and tension

CONTINUED ON

NEXT PAGE

Unexploited

The U.K. offshore industry is hoping to get in on the ground of Latin American oil developments for instance, which are still largely unexploited despite the great magnitude of oil resources. Over the next decade the area has some of the brightest prospects for the development of oil production and refining and with this in mind several trade missions are planned or have already taken place to the region.

With the aid of the Offshore Supplies Office the whole of our Continental Shelf. Britain can afford the expense of importing large platforms. We need the capacity to meet the numbers and variety of platforms that will be required in the North Sea and to meet some part of the demand for platforms and equipment that will be coming from offshore development costs, and if there is a commercial find it will be remunerated from the proceeds.

The Government feels that a Scottish yard, believed to be the prospects for additional McDermott's at Ardrosson, is in business brighter now than the running for a big platform they have been in recent order from Petrobras, which months. A decision has been could be worth tens of millions taken to develop Conoco's Mur of pounds. McDermott's, which chiselled only a year after its building a steel platform for discovery and appraisal work Union Oil's Heather Field has been stepped up on other also recently won an order for fields.

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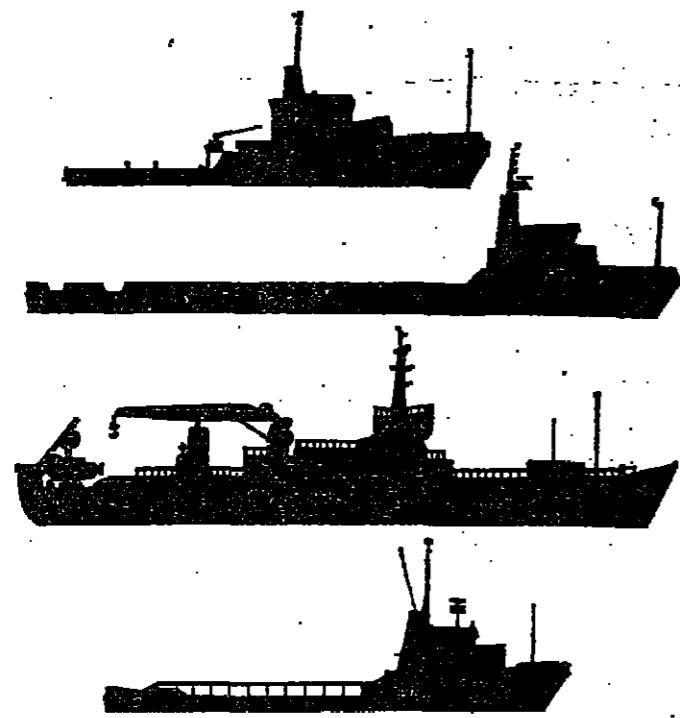
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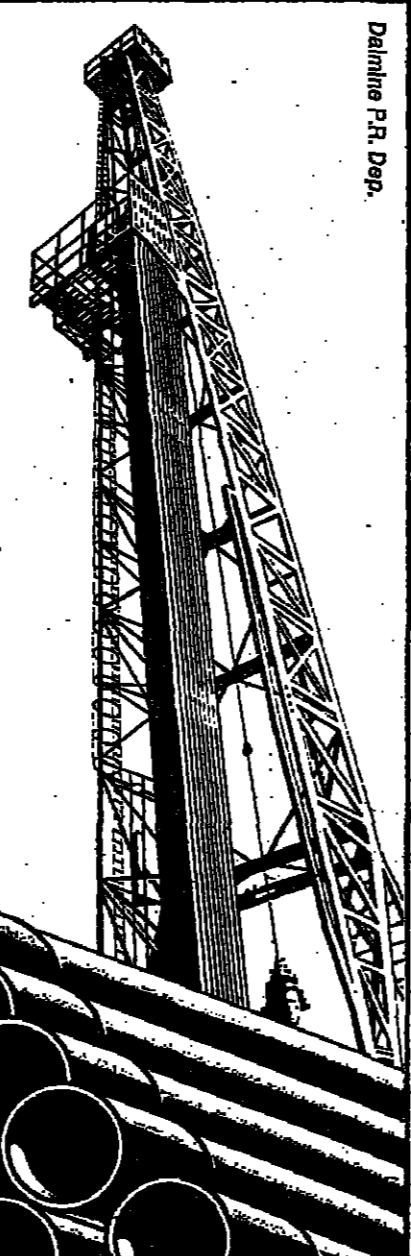
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OFFSHORE EXPLORATION X

Gloomy outlook for rig builders

THE PROSPECTS for oil rig to 18 months. Some eventual manufacturers and contractors stimulus to drilling will also be in the next 12 months are felt from the fifth round of gloomy as rigs come off contract licensing in British waters. A and are unable to find further work. Some are facing a future of being laid up for unspecified periods or else they are being placed on work that is so uneconomical that contractors are finding it difficult to even cover their costs. With the continuing lull in North Sea activity no major boost to the drilling market is expected until exploration gathers pace off the Atlantic coast of the U.S. over the next two years.

Brokers such as Mr. Sverre Farmen of Shield Offshore do not see the market picking up for at least 18 months and are writing off the 1977 drilling season in the North Sea as a period when the current low level of activity is unlikely to be altered. One reason for this outlook is that several sophisticated rigs are now contracted at rates between \$18,000 and \$20,000 a day, rates that fail to break even, and these contracts continue through next year.

One effect of the depressed market is that a certain natural reduction in the number of rigs available is occurring as older rigs are withdrawn from service and scrapped. In about 12 months it is possible that the reduction will have been great enough to allow the market to start absorbing the available rig capacity. This is also being reduced in the North Sea by a number of rigs operating as accommodation platforms. This is a particular difficulty facing Norwegian and U.K. oil companies, which have not yet entered the market for only a few years. The levels of costs they are facing are appreciably higher than many U.S. competitors operating with older equipment. They also have the difficulty of establishing a track record in drilling when pitted against companies with long-established international reputations.

Mr. Schanche feels that the current over-capacity should start to be alleviated in 1978 and suggests that dynamic positioning and improvements in rig design for drilling in Arctic waters are requirements which future suppliers should be looking at. The Aker Group also believes that there is a market for rigs suitable for operation in shallower waters such as the Arabian and Mexican Gulfs, and of South-East Asia and South America.

In the last four years mobile offshore drilling rigs have gone from about 20 to one. Others, such as Exxon, which picked up 30 tracts costing \$345m. after 1970 and next year supply is likely to have doubled. According to figures produced by L'Institut Francais du Pétrole earlier this year in its two-volume study of the world market for rigs the present fleet numbers about 340. This would be broken down into 17 submersible rigs, 147 jack-up rigs, 97 semi-submersible rigs and 77 drillships. All categories except the submersibles have shown an increase over the past 18 months.

Nearly 46 per cent of this total are capable of drilling in depths of water of more than 150 metres. Because of their mobile nature rigs might well move all over the world in search of work during their life-

times but this year the main areas of operation are North Sea from a point in 1960 when America, 28 per cent, Western Europe 22 per cent of all rigs were located off the U.S. This year South-East Asia is accounting for 15 per cent in the North Sea—South

East Asia, 15 per cent, and Latin America 12 per cent. The Middle East has accounted for 10 per cent of this year's activity. Africa 9 per cent and the Communist countries 3 per cent.

The distribution of rig types has varied enormously according to local conditions with more than 50 per cent of the semi-submersible rigs, for example, working off the Western Europe.

The average life of a rig has tended to be at least 15 years and at the beginning of the year, according to the IFP, only 17 per cent of the total number of rigs had been built before 1985, with the average age for all drilling rigs being set at 7.3 years.

The major European proportion, 15 per cent, will be accounted for by Norwegian interests who should be controlling 32 per cent of semi-submersibles—the European share of this sector should reach 50 per cent.

The prospects in the short term for the mobile drilling market are gloomy, with the excess of supply over demand unlikely to be reversed before the end of the decade. The rig surplus has now existed for many months and at the beginning of the year at least 25 rigs were laid up without contracts.

At the same time 60 per cent of rigs under construction were without contracts, and it suggests that by 1978 there could be a surplus of about 50 rigs. This would take the 12-13 per cent of available rigs with first semi-submersibles then drillships being the worst affected.

Difficult

Rig builders are distributed widely throughout the world. During the decade 1965-1974 of total deliveries of 214, 53 per cent came from U.S. yards, 22 per cent from Western European yards and 16 per cent from South-East Asia.

But orders reached a peak in 1975 and have been declining rapidly since in every rig category. From January 1 1975 to July 1 1976 the number of jack-up rigs on order has declined from 64 to 27, semi-submersibles from 64 to 28 and drillships from 38 to 14. The orders are divided among some 40 yards with the U.S. taking 28 per cent of the market—against 53 per cent in the period 1965-74—Western Europe 33 per cent and South-East Asia and Australia 34 per cent.

About 20 new yards have been set up since 1972, but in 1975 and the first half of this year only 10 new orders were placed and these came mainly at the beginning of the period. At the same time 19 orders were cancelled and 88 rigs delivered resulting in a 55 per cent reduction in the order books.

The rate of growth has been uneven following the fluctuations in the exploration activities of the oil companies, but in the past 15 years there has been a dramatic dispersal of

Kevin Done

Problems with pipelines

THE NATIONALISED industries are used to putting up with what they judge is unjustified criticism. But the British Steel Corporation still gets irritated by those people who accuse it of letting Britain down because it can provide no pipeline which comes up to present-day specifications for transmitting oil and gas under the sea.

The BSC argues that it would have been commercially ludicrous to have had such capacity before the North Sea exploration began and that there is still over-capacity in the world for this type of product. So it might very well find the business uneconomic, even if it does come late to the game.

When the North Sea oil market began to open up all the corporation had in the way of inherited pipeline capacity was its Hartlepool mills, capable of producing pipe in diameters

from 24 inches to 44 inches in required for the North Sea.

But the oil companies show that British companies required pipelines as much as captured only 5 per cent of the 0.8 inch-1.9 inch or even 1 inch offshore pipeline market (worth £55m. in 1975 and £55m. the previous year).

Most of the pipeline is coming from the

Consequently Britain itself Continent or Japan.

It has been able to provide only a

Ever since the BSC started

transmitting oil and gas under

very meagre part of the pipeline to discuss its major rationalisation.

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OFFSHORE EXPLORATION XI

Services in demand

THE VALUE of orders for services for the offshore industry, ranging from rig hire to piping, diving, and helicopter transport, catering and marine development such as Shell's Esso's Brent Field, the biggest in the U.K. sector of the North Sea and even outstripped the total value of capital goods orders, which at a cost of £2bn., would generate an annual maintenance budget or commitment amounting to some £60m. About 60 per cent of development costs for this field are accounted for by the equipment and hardware, including the platform and pipeline.

Maintenance

This potentially lucrative business is maintenance and over the next four years it will become one of the big growth markets of the offshore scene, but yet it is hardly off the ground and few U.K. companies have begun to make firm preparations to provide the kinds of complex package deals that will be sought by the oil companies. The maintenance market has been slow to grow in the northern sector of the North Sea because of local conditions and the nature of gas platforms, but in the turbulent weather conditions of the northern North Sea, as increasingly complex platforms are placed in more and more inaccessible locations, the demand for maintenance service is set to mushroom in a manner that few companies and Government agencies are yet ready to face.

Essential differences between the maintenance demands of the gas platforms in the southern sector and the oil platforms of the northern sector of the North Sea will soon become apparent over the next two years. The changes will impose need for investment in men, equipment and administrative systems that are likely to be as daunting as some of the tasks that will have to be performed, and it is probable that only some of the U.K.'s largest companies will be able to muster the financial resources on the necessary scale to do the job.

Experience in the Gulf of Mexico has shown that about 3 per cent of the capital cost of production equipment is spent annually on the maintenance.

Pipelines

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ion programme if it has commercial position for the mentioned the possibility of future development of its plate industry the necessary capacity business."

o that it might at least go after he contracts it has so far been no position to bid for.

A solution seems as far away as ever though. The key feature of this particular problem is the whether a mill of the size corporation's plan to invest in a major new plate mill which could be able to use controlled rolling techniques and thus produce plate of the thickness required in the North Sea.

The pipe mill itself presents a much less difficult problem and is possible that the existing Hartlepool mill could be modified at relatively little cost to cope with the manufacture of the pipeline once steel plate of a suitable thickness was available.

According to the BSC's plans so far announced the new plate mill would be part of its development on Teesside, and a very major part in terms of investment and in employment terms too.

Storm

It is because the project is becoming the centre of a political storm on Teesside. An indication of the way the local people see it is that it is constantly referred to as "the 300-tonne plate mill". Both Teesside and Hartlepool have put their claims for the proposed mill. But Sir Monty Popham, recently retired chairman of the corporation, has publicly stated that "there is no rational alternative but to site the mill at Teesside." In spite of the long stays in its investment programme the BSC is actually in the process of modernising Redcar and under "Stage Two" currently proceeding, a new last furnace is being constructed.

Another reason why the debate about whether or not there should be a new plate mill, let alone where it should be sited, is that it would have an annual capacity of 300,000 tonnes a year. And with its extra capacity the Corporation would have to close down its existing mills. Thus the problems once again looms large.

The BSC's last annual report stated: "The new mill, which could be an integral part of the major steelmaking complex planned for Redcar, would compare with the most modern in the world and would place the corporation in the strongest

balance and servicing of offshore platforms. Of such a calculation it is estimated within the servicing industry that a development such as Shell's Esso's Brent Field, the biggest discovery in U.K. waters and the sixth to be brought on stream, the total value of the total value of capital goods orders, which at a cost of £2bn., would generate an annual maintenance budget or commitment amounting to some £60m. About 60 per cent of development costs for this field are accounted for by the equipment and hardware, including the platform and pipeline.

Maintenance

The sort of maintenance operation that has been possible in the Gulf of Mexico and especially on the gas platforms in the southern sector of the North Sea where it has been carried out pieces will no longer be feasible in the northern sector. The five main companies involved in the southern sector, Amoco, Shell, BP, Conoco, and Phillips all have their own maintenance philosophies which have largely involved tasks being carried out by their own personnel. Outside contractors have usually been brought in only when the necessary work was too big or too difficult to handle domestically.

The gas platforms are far smaller than the oil production platforms and are far more accessible from the shore. Operating in depths of only about 120 feet they are located no more than about 50 to 70 miles offshore and because of the less turbulent weather conditions they can be reached for about 350 days of the year.

Also because the process of extracting gas is far less complex than that needed for oil, the platforms are less complicated, their own energy needs are far smaller than an oil platform's and they have only about 40 per cent of the moving parts. This means that the most practical form of maintenance is remedial, rather than preventative.

It has proved necessary to keep only very small maintenance service is set to mushroom in a manner that few companies and Government agencies are yet ready to face.

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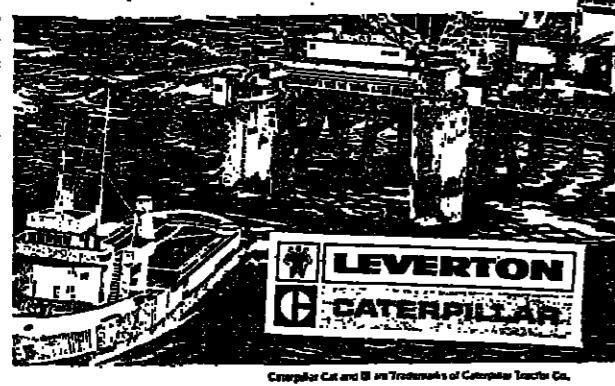
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Changes

And changes it has made. The final form of the Petroleum Revenue Tax, with its capital uplifts, safety net and other provisions, was revised not just in particulars but in shape as a result of intensive negotiations with the British National Oil Corporation; some of the technical aspects of the pipeline clauses in the Petroleum Act and some outstanding corporate issues arising from the petroleum revenue tax.

None of these issues look headed for confrontation. Indeed, most of them seem well on the way to compromise. This is not to say that the industry is now well satisfied with the shape of legislation as it has been modified. But, after the very real concerns over Government intentions which greeted the Government's first announced policies on depletion, control, participation and tax in 1974, there is at least some reassurance that the Government's intentions are honourable rather than simply perverse. Most companies would accept the Government's case that, in view of the mistakes of the past and the central importance of oil after the price rises of 1973-74, legislation to enable it to control supplies and price in case of a national or international emergency, rules development costs in the new round of licences from a development and action to give "carried interest" to a "pay it, a fair share of the profits as the cost is incurred" basis.

What the continued post-legislation discussions now concern is less principle than the details of administration. The most important is unquestionably the way in which development consents are given and the

underlying workings are more generalised, the degree to which the extensive negotiations following legislative proposals reflect a lack of understanding

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Left: (above) Thistle 'A' steel
jacket structure, built under
Lloyd's Register survey, on its
way to be positioned on site
earlier this year; (below) An
artist's impression of Chevron's
Ninian Field concrete gravity
platform, being constructed by
Howard Doris at Loch Kishorn.
under Lloyd's Register survey.

OFFSHORE EXPLORATION XII

Legislative deluge

THE LAST THREE years has seen an almost constant flow of depletion controls within which standing by officials; the extent of which will be to which the numerous powers will be used by the Government will be unsettled by the total lack of definition of any policy framework for the wide-ranging controls which Government has now taken upon itself. Controls, as of political security that all this legislation will, in practice provide for the development of the oil and gas industry in the North Sea over the coming years of development.

Whatever the compromises made to the bills before final enactment, the fact that such extensive modifications had to be made to the Energy Bill proposals, as to the original drafts of tax and control legislation, must raise questions as to the quality of the civil service involved in these issues. The North Sea, after all, is now more than a decade old. Yet even after this experience, and even after the talks surrounding the Petroleum Bill, the Government still came forth with a Bill like the Energy Bill which was poorly drafted and badly prepared. Yet confidence in the experience and authority of civil servants is essential if the public is to believe that its interests are being preserved and if the industry is to believe that the vagueness of control is not to lead to problems in the future.

Other discussions concern particular, although not unimportant, details on calculations of processing conveyancing costs for the calculation of well-head royalties; an industry-wide basis for operating agreements with the British National Oil Corporation; some of the technical aspects of the pipeline clauses in the Petroleum Act and some outstanding corporate issues arising from the petroleum revenue tax.

None of these issues look headed for confrontation. Indeed, most of them seem well on the way to compromise. This is not to say that the industry is now well satisfied with the shape of legislation as it has been modified. But, after the very real concerns over Government intentions which greeted the Government's first announced policies on depletion, control, participation and tax in 1974, there is at least some reassurance that the Government's intentions are honourable rather than simply perverse. Most companies would accept the Government's case that, in view of the mistakes of the past and the central importance of oil after the price rises of 1973-74, legislation to enable it to control supplies and price in case of a national or international emergency, rules development costs in the new round of licences from a development and action to give "carried interest" to a "pay it, a fair share of the profits as the cost is incurred" basis.

What the continued post-legislation discussions now concern is less principle than the details of administration. The most important is unquestionably the way in which development consents are given and the

confidence must further be unsettled by the total lack of definition of any policy framework for the wide-ranging controls which Government has now taken upon itself. Controls, as of political security that all this legislation will, in practice provide for the development of the oil and gas industry in the North Sea over the coming years of development.

Such a lack of policy framework can be work may indeed reflect an even avoided, with all the consequences that has for a reconsolidation at the centre. Scottish nationalism, for example, must for all the safety-net provisions, has single influences on political, encourage the development of the marginal fields. The Government has now the power to exercise control of supplies and prices of oil, not just in an international emergency but in any situation which it defines as requiring their implementations. It has the power, through the injunctive clauses of the Energy Act, effectively to control gas exports. It has the power to direct flows of petrochemicals as well as methane gas onshore and off. Yet these fears will prove groundless and the last year of legislation will end one era of political uncertainty and introduce another of greater stability. At least there is little indication that a change of Government will lead to dramatic reversals of Acts in force. But, for the time being, there must be a sneaking suspicion that the legislation may not succeed in its aims and that, in a few years, it may all have to be reconsidered again.

A.H.

Securing the finance

THE CIRCUMSTANCES past are beginning to pay off. "escalation" pointed out that of regional development. The rounding North Sea oil... and Moreover, while fears about the most recent estimates of all EEC provided £20m. for gas transmission from the Frigg field earlier this year because of regional implications for industrial development in Scotland. More recently it announced a \$30m. budget. The Forties Field loan to help with production development cost to BP, for instance rose from £350m. in 1972 to £750m. in mid-1975. Inflation had played a part but miscalculations had also been made because of technical inexperience.

Methods

Overall, it is believed in the industry that between £8bn. and £10bn. is still required to develop North Sea oil discoveries up to 1980, bringing the total cost of financing the U.K. fields, allowing for inflation, to what the Hemy Centre of Forecasting has lately put at £14.7bn.

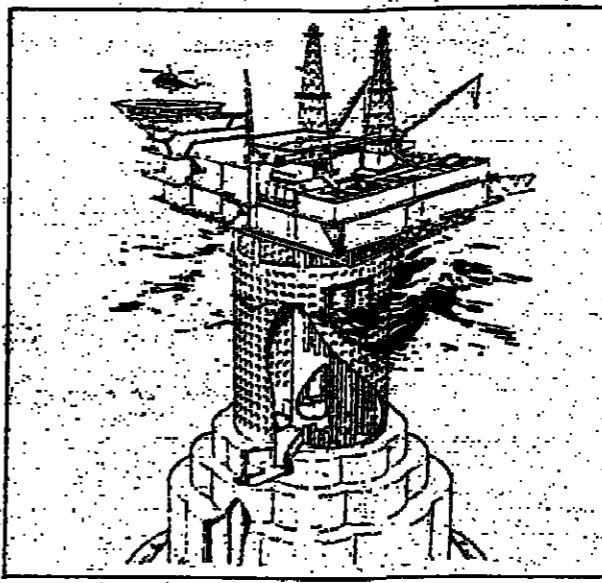
Against this background, 1976 has also turned out to be a useful landmark in the broadening of alternative methods of financing.

Moreover, this need has been enhanced in the current year by new statistics on the extent to which costs of North Sea development have risen beyond previous expectations. Only last July, the Department of Energy in a report on North Sea cost

CONTINUED ON NEXT PAGE

BIGGEST IN THE NORTH SEA

Thistle 'A' (operator BODL) and Ninian Central (operator Chevron Oil) just two of the over 60 installations to be Certified by Lloyd's Register of Shipping for operation in the North Sea.



Lloyd's Register has specialists in structural analysis, metallurgy, vibration, automation, marine, electrical and refrigeration engineering, concrete technology, soil mechanics, fire protection, etc. fully-trained, full-time surveyors stationed worldwide; research laboratory; in-house IBM 370/158 computer.

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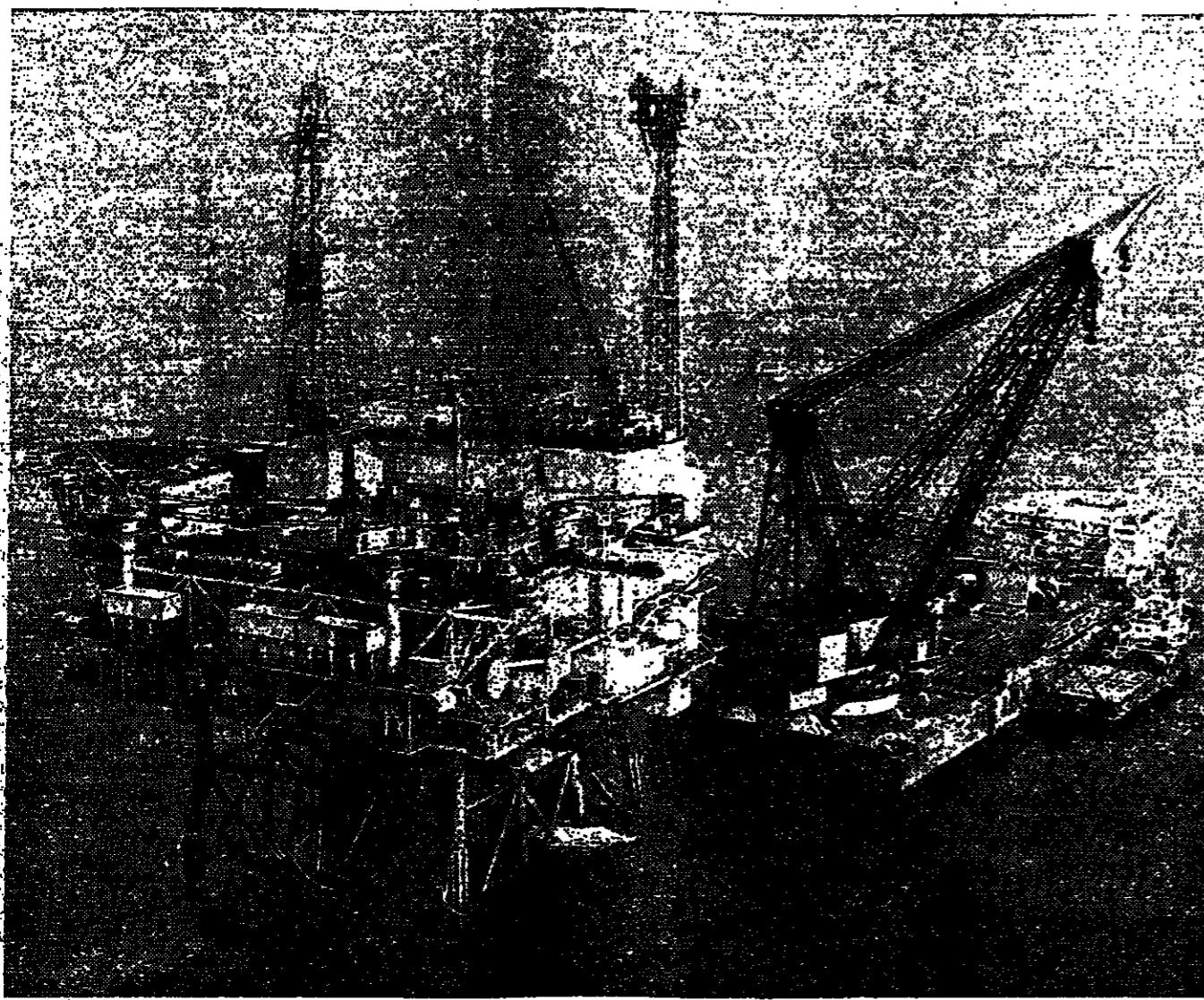
Left: (above) Thistle 'A' steel jacket structure, built under Lloyd's Register survey, on its way to be positioned on site earlier this year; (below) An artist's impression of Chevron's Ninian Field concrete gravity platform, being constructed by Howard Doris at Loch Kishorn, under Lloyd's Register survey.

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OFFSHORE EXPLORATION XIII



Another aspect of the North Sea—insurance coverage of the very expensive equipment needed for exploration and production. This is the FA production platform on BP's Forties Field, with a crane barge alongside.

High risks for the insurers

THE INSURANCE industry—not just the U.K. market but worldwide—is having to cope with vast risks in offshore exploration for oil. It has managed successfully so far with the insurance of North Sea exploration and development but it is now faced with the problem of dealing with the "fifth round of licences," which could involve insurance of exploration rigs and development platforms in the Western Approaches, areas off Cornwall and Devon and the Celtic Sea.

In these areas, in addition to hazardous sea conditions, oil rigs will be operating in one of the most congested sea lanes in the world. Supertankers and large ore carriers, bulk carriers and general cargo ships through the Channel and, although there is a directive by both the British and French Governments—supported by the International Maritime Consultative Organisation (IMCO), UN organisation—that there should be a two-lane traffic system, a number of "maverick" ships daily ignore this rule of the road. An average 300 ships navigate the Dover Straits.

Directive

Another directive, that ships should avoid drilling rigs and platforms by at least 500 metres, may also be imposed in the Channel but there may be some reason about the effect of this directive following the success of an oil tanker in the Channel hitting a lighthouse and an ecocarrier.

Nevertheless, leading insurance brokers do not foresee, when licences are issued for the Western Approaches and the Channel, that premiums should be any more penal than those in the North Sea.

In London, insurance of offshore exploration rigs and production platforms in the North Sea is dealt with by a handful of specialist brokers, headed by Sedgwick Forbes, Blain Payne, Bain Dawes and Hogg Robinson. The amounts involved in insurance of exploration rigs and development platforms, however, are so high that even the combined British insurance market—Lloyd's and the companies—has not been able to accept the full risks.

Brokers and underwriters involved in North Sea oil development have had to re-insure part of the risks in the European, Japanese and U.S. markets, said a leading British broker. "We are re-insuring throughout the world." It is an indication of how high the values are on even a single risk that the London market finds it necessary to re-insure. Normally the reverse is the case with the world, including the U.S., coming to Britain to re-insure, or hedge-off in better parlance.

One broker, commenting on the fifth round of licences, said he did not think that, when awarded, they would create a new problem in navigational terms. The main anxiety for the insurance industry was the soaring cost of drilling and of fixed structures, particularly development platforms.

"Fixed structures" concerned last year cost about \$425m. in the North Sea. To-day they would cost about \$500m. and their replacement cost in two-and-a-half years time would be about \$1,200m., he said.

The task facing underwriters and brokers is illustrated by this problem of inflating costs. About 10 years ago a production platform in the Mexican Gulf had an insurance value of \$100m. In the North Sea to-day "blow-outs" by 1981. The report also forecasts that by the same year, the insurance premium for such installations, can be valued by year, clean-up, organisations that is dependent upon them.

This factor was emphasised in September by a Government report which says there is a 50 per cent probability of more than one offshore drilling rig or platform being hit by a "blow-out" by 1981. The report also forecasts that by the same year, the insurance premium for such installations, can be valued by year, clean-up, organisations that is dependent upon them.

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James McDonald

Finance

admittedly not much, tried \$100m. to Thomson North Sea investment bankers. Charterhouse, with its 20 per cent. interest, contributed to the capital costs. Of special significance was the development as part of a \$1 billion participation deal.

The cost of the Burmah issue and other North Sea related calls on Government funds, however, has lately led to fears that the Government and IMCO may be getting short of cash and that this puts limits on their ability to provide much more financing assistance, at least in the short term.

Thus the spotlight has turned to the more novel developments that have taken place this year, particularly in relation to financing the smaller concerns' North Sea work.

Much interest, for instance, surrounded the \$275m. financing package provided for the vestment risks. First came the issue of the London and Scottish Energy Bank and the British Marine Oil and Scottish Transport Bank. One hundred and one (LSMO/SCOT) oil production units were formed by Occidental which has a 36.5 per cent stake in the field and vestment Syndicate formed by investments in the past. The

formation of an Investment Syndicate by such institutions is designed to provide the finance needed to help keep the second line North Sea development companies in business. The Charterhouse Group already had a 1 per cent stake in the Thistle field and set out to "educate" other financial institutions into committing themselves similarly by subscribing at least 10 per cent each to the syndicate.

In 1976, such schemes have been regarded as more important as a testing ground for potential investor interest. At present being hardly of great significance in the wider context of the huge sums still needed for North Sea development. But their success so far has offered hope that the needs of the smaller developers, who claim some 400m. barrels of proven oil and who collectively are of considerable importance in the total North Sea programme, will not be neglected.

Pauline Clark

BNP and the North Sea

Banque Nationale de Paris—fourth largest commercial bank in the world—has participated in financing twelve of the oil and gas fields under development in the North Sea.

Ekofisk Frigg Piper Montrose
Beryl Brent Cormorant Claymore
Petroland L.7 Thistle Albuskjell Statfjord

Basically, BNP makes two kinds of credit available for these projects.

International Financing

International financing arrangements in which BNP has participated have included the US\$650m. credit for the development of the Frigg field and a substantial participation in the financing of the Ekofisk field.

French Export Credits

BNP has provided credits in French Francs equivalent in value to US\$1000m. in connection with the supply of materials and services by French companies for North Sea projects.



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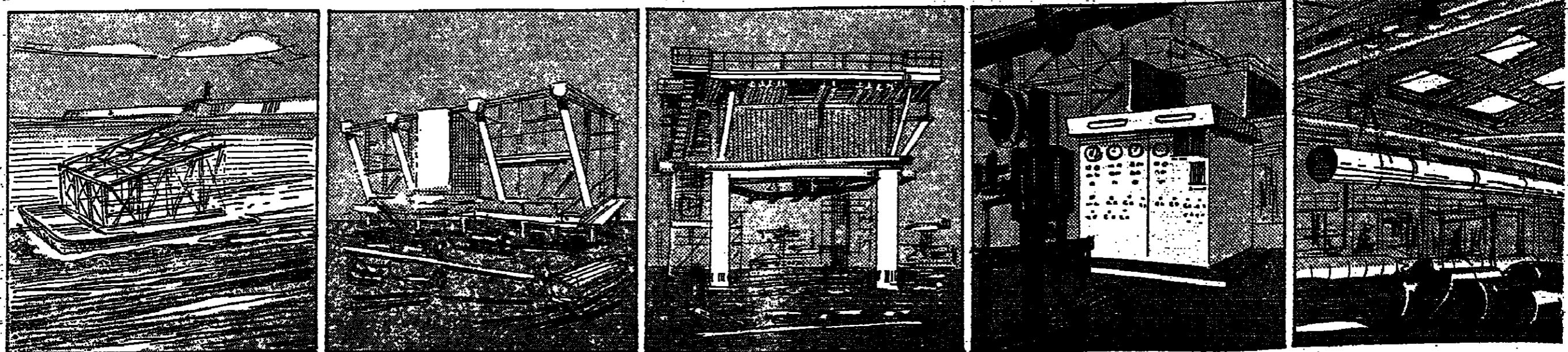
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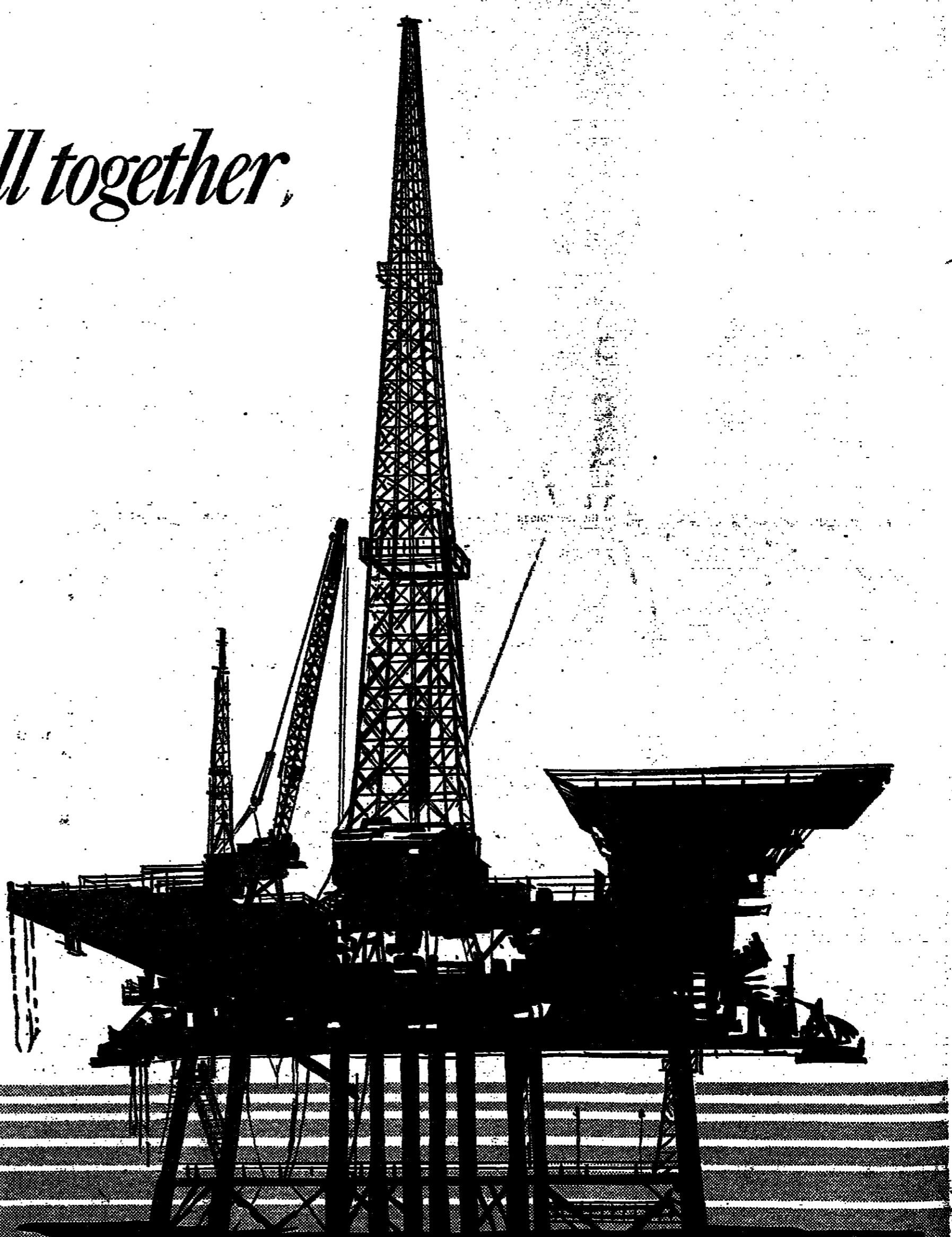
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COMPANY NEWS + COMMENT

Whitecroft up 66% in first six months

AN INCREASE of 66 per cent. in pre-tax profit from £1.3m. to a peak £2.16m. is reported by Whitecroft for the six months to September 30, 1976 and Mr. E. G. Gold, the chairman, forecasts a record profit for the current year.

First half earnings per share are 110p against 7.4p adjusted for the recent rights issue and the net interim dividend is lifted from 1.1p to 2.8p on increased capital. Dividends totalling 7p have already been forecast for the year compared with 5.81p last year.

Treasury permission for the increases has been received.

Turnover: 1976 £1.36m. 1975 £1.14m. Profit before tax: 1976 £2.16m. 1975 £1.3m. Net profit: 1976 £1.04m. 1975 £0.81m. Minority: 1976 10p. 1975 4p. Retained earnings: 1976 £1.04m. 1975 £0.81m. Dividends: 1976 7p. 1975 5.81p.

Whitecroft's net debt, after debenture stock, has associated expenses.

As forecast in the chairman's annual statement, the textile division has shown a marked improvement in profits during the half year and this continues. The building companies continue to be adversely affected by a shortage of orders but remain profitable.

Thomas, Ryder and Son, the metal and sub-divisions, has made a substantial recovery during the past six months and has shown a break-even position in accordance with forecast. The remaining companies in the group have all operated successfully during the period, the chairman says.

Comment

Whitecroft's half-time news that it has more than made up last year's £1.1m. loss in its textile as well as turning in profits at machine tool makers Thomas, Ryder, which had a £157,000 loss a year ago, was greeted by an 8p jump in the shares. Restocking of industrial cloths is a big factor in increased textile demand, which seems to be continuing in the second half, and the has benefited from the British Leyland orders. The building supplies division is being held up through maintenance work but the contracting and civil engineering side, though still in the black, is suffering from the cutback in contracts throughout the industry. Still, the company shows that it is well able to make fat pre-tax at the year-end. At 84p the promised dividend shields 12.2p per cent. already covered 1.6 times by interim earnings despite the rights issue dilution, and the prospective p/e is 3.83, based on average capital.

Scottish Northern \$3.5m. loan

Scottish Northern Investment Trust has arranged a loan facility of £1.5m. from Clydesdale Bank. The facility will extend for five years with a rate of interest payable for the first year at 7.1 per cent.

This borrowing replaces the five-year loan of £2m. at 7.1 per cent. which fell due for repayment yesterday and has been repaid.

The loan will provide Scottish Northern with further flexibility in the operation of its substantial Northern American investment portfolio but does not affect the AGM that the trend in the number of visitors, turnover and profit

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ments as between the U.K. and North America.

Second half downturn at MAM

AFTER a rise at half-time from £101,689 to £171,284, pre-tax profit of Management Agency and Music for the year ended July 31, 1976, fell from £1.68m. to £1.2m.

Stated earnings are 12.1p (12.2p) net 10p share. The unchanged final dividend of 2.25p

does not makes an unchanged total of 5.2p.

Turnover: 1976 £11,834,377. 1975 £10,412,327.

Share issue: 1976 1,000,000. 1975 1,000,000.

Taxation: 1976 £1,942,131. 1975 £1,651,239.

Excess: 1976 £1,000. 1975 £1,000.

Dividend: 1976 2.25p. 1975 2.25p.

Credit: Goodwill written off. Profit

on disposal of trade investments.

Comment

MAMS' profits fell by 12 per cent. in the second half as the fall in pound reduced income earned on American artists (like Sinatra) appearing at the U.K. But some profit was offset by a 10 per cent. share move to 10p.

The p/e is 4.1 and yield 16.1

per cent. After a year of negotiation, MAMS is expecting a year of production. Its main due-

Jones and Humberdinck, who produce over half its earnings—have just released new records in the U.S. that are beginning to scale the pop charts and will be re-released here soon. Meanwhile, they can do with O'Sullivan is to release a Bedi Hits album. The hotels side is benefiting from the U.K. tourist boom with occupancy rates over 85 per cent. But the marina is no more than holding its own. Overall, the share ratings look about right for a company that shows no sign of emerging from its profits plateau.

Myddleton Hotels profit up so far

Mr. A. C. Hornsby, chairman of Myddleton Hotels, said at the AGM that the trend in the number

of visitors, turnover and profit

for the first five months of the current year was satisfactory. Profit before tax was above the level achieved at this time last year.

He also reported that as result of the sale of the Bishop's Stores, Herland and Coburg hotels, borrowings have been significantly reduced, and with over £1.2m. on deposit, the financial position was stronger than it had been for some time and form a sound base from which to go forward.

The interim dividend is raised from 1p to 1.1p net per 50p share. Last year's total was 2.10p.

Turnover: 1976 £1,178,000. 1975 £1,161,200.

Share issue: 1976 1,000,000. 1975 1,000,000.

Taxation: 1976 £1,000. 1975 £1,000.

Dividend: 1976 1.1p. 1975 1.1p.

Credit: Goodwill written off. Profit

on disposal of trade investments.

Comment

Turner Curzon's first-half profits are up by 24 per cent. pre-tax, but the comparability of the figures is apparently open to some doubt. The group reckons that the normal seasonal profit pattern in the previous year was exceptionally distorted and that the current year figures in fact show little growth over the corresponding profits. Of the three most important divisions, turnover has been the only one to make any progress, distribution and manufacturing have done no better than stand still. The timber

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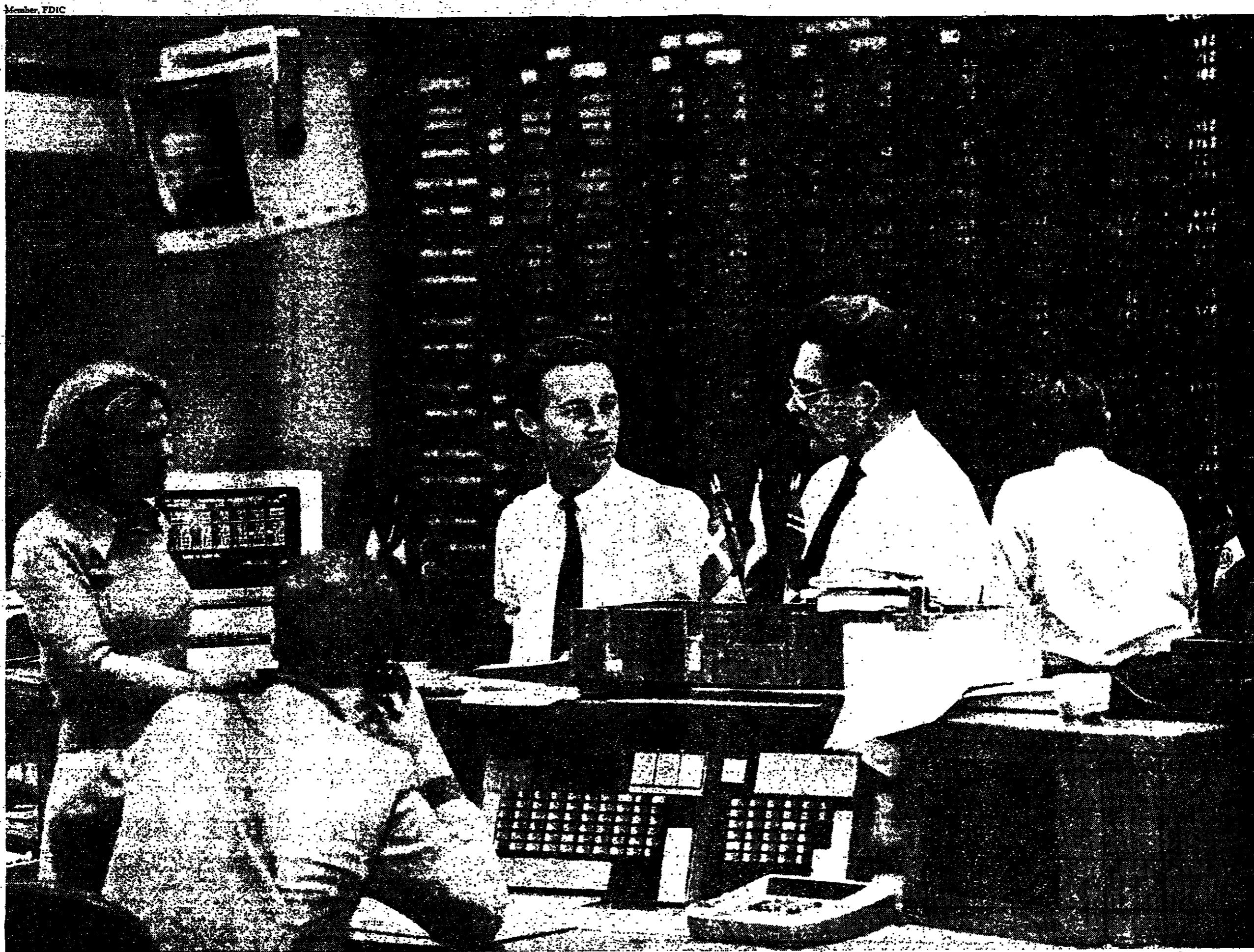
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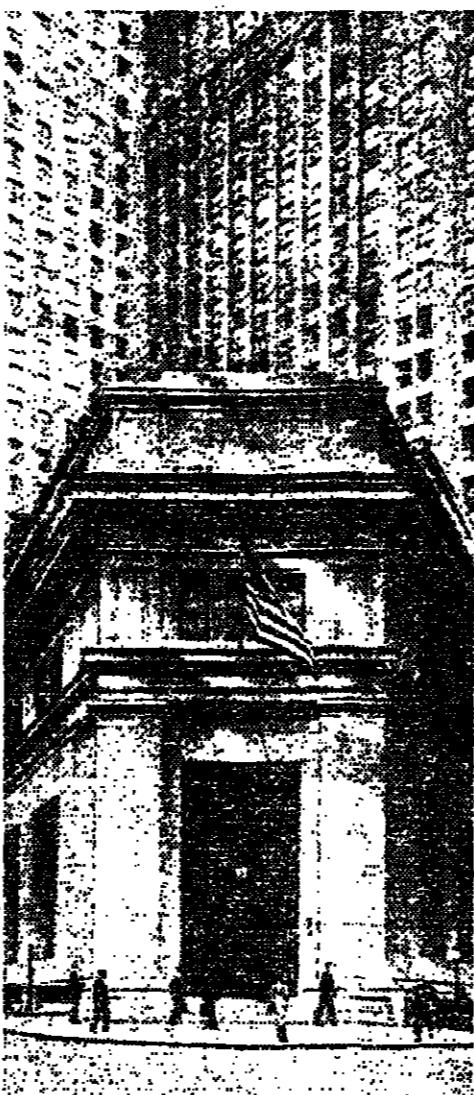
Shown in Morgan's New York headquarters, Senior Vice President Dennis Weatherstone (centre) heads Foreign Exchange and Euro-currency Trading. Vice President Robert Van Roten (right) is chief foreign exchange trader in New York. Vice President Nancy Shaw runs the Euro desk.

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CHAIRMAN'S ADDRESS TO SHAREHOLDERS

Shareholders who attended the 43rd Annual Meeting of Western Mining Corporation Limited in Melbourne on November 18th, 1976, were informed by the Chairman of Directors, Mr. Ayl Parbo, that:

• at present over 90% of the Company's revenue was from nickel.

• the Kalgoorlie nickel smelter was being expanded.

• the Company's search for copper had resulted in the discovery of a very large body of copper mineralisation in South Australia.

• WMC was increasing its petroleum exploration effort.

• plans for the development of the Yeelirrie project depended on Government policy and market considerations.

• gold production was profitable at Central Norseman, but uneconomic in Kalgoorlie and at Hill 50 under present conditions.

Mr. Parbo said that the world had passed through what was recognised as the deepest economic recession since the 1930's. During the second half of 1975/76 there were signs that the economic recovery had begun, particularly in the USA, but markets for most metals and minerals, including WMC's products, remained depressed. Depressed markets, high costs and an over-valued Australian currency had resulted in a decrease in profit for the year from A\$14.4 million to A\$12.6 million.

NICKEL: Production and purchases of nickel in the year under review, at 47,500 tonnes, were at record level.

Sales had been maintained at 39,000 tonnes through substantial spot sales of matte.

Stocks at the end of the year were twice normal requirements, but stockpiling of excess production was considered preferable to reducing output as it maintained maximum efficiency in operations and avoided retrenchments.

Since the end of the year WMC's joint venture partner in the Windara project had applied to its major creditor, the Australian Industries Development Corporation, for the appointment of receivers. WMC would consider assuming an equity role in the venture and in the meantime would continue providing the Receiver with the funds required to develop and operate Possidon's share of the project.

The Company welcomed arrangements which enabled operations at Windara to continue normally, together with those taken by the Australian Industries Development Corporation, or by other interested parties.

The nickel smelter had operated very satisfactorily. It had been recently agreed that, commencing in 1979, WMC will treat up to 100,000 tonnes per year of concentrate to be produced from the nickel mine under development by Western Securities (Pty) Limited and Mount Isa Mines Limited, at Agnew, Western Australia.

For this purpose work had commenced on a new flash furnace capable of treating 450,000 tonnes of concentrate per year without the addition of oxygen in the furnace air. The Agnew joint venture will provide \$20 million of the estimated \$30 million cost of the new furnace and auxiliary plant.

It was estimated that with the addition of two, the ultimate capacity of the new furnace would be more than 800,000 tonnes of concentrate per annum.

The Kwinana refinery capacity had been expanded to 30,000 tonnes of metal per annum and the ammonia plant commissioned.

GOLD: Due to exploration success in finding high grade ore, Central Norseman Gold Corporation N.L. (50% owned) made a profit of \$41.5 million. The gold price, increasing costs and adverse currency parity. Proved reserves of high grade ore were sufficient for about 3 years' production.

It was expected that the Mount Charlotte mine, the last remaining mine at Kalgoorlie, would cease production before the end of 1978.

The cessation of gold production in Kalgoorlie said Mr. Parbo, was a matter of deep regret as it marked a milestone not only in the history of WMC, which had been active in the area since its formation, but also in an important mining town in Western Australia.

WMC's interest in Mount Charlotte had been lessened by the discovery of other mineral in the district in the last 10 years.

MINERAL SANDS: Reporting on the Company's mineral sands project at Julian Bay (W.A.), Mr. Parbo said this had suffered from commissioning and production problems and from very depressed markets for rutile and zircon. Additional investment in the plant had been required to the plant to overcome production limitation and the market price of zircon and rutile was being run in. Substantial stockpiles of semi-processed material had accumulated and it had been decided to re-treat these instead of processing additional newly mined material. This would materially assist in financing such exploration.

During 1976 new prospecting areas were scouted in the Surat Basin in Queensland, and in the Abrolhos Basin on the coast of Western Australia, the latter in a 50-50 joint venture with Esso Exploration and Production Australia Incorporated.

In the Abrolhos Basin a seismic survey commenced in October and was expected to be completed before the end of 1976. Depending on the results, one or more wells will be drilled during 1977.

In the Padirka Basin a follow-up seismic survey was also completed. While the evaluation of the results will not be available until the drilling targets had already been outlined. On present plans two wells will be drilled in this area before the end of the financial year.

FUTURE OUTLOOK: Mr. Parbo said that the world economic recovery which had commenced earlier in 1976 had slowed down, and it now appeared that difficult market and business conditions would continue into 1977.

Western world production of nickel was still high, but concentrations of nickel in substantial excess stocks. In January 1977 the US Congress would be asked to appropriate funds for a major strategic metal stockpiling programme, including approximately 200,000 tonnes of nickel over the next 3 years. It is hoped that this programme would absorb over a period the present Western world excess nickel stocks, which were estimated at less than 200,000 tonnes.

The Company's surplus stocks were expected to increase slightly during the first half year.

The after-tax profit for the first half should be similar to the profit in the first half of 1975/76.

Present indications were for some improvement in the second half.

Mr. Parbo said that at the year's Annual Meeting he concluded that the outlook was uncertain. This year it was still not possible to be optimistic, but there were expectations of a slow improvement in conditions, both overseas and in Australia, during 1977.

IS/108



Mr. A. H. PARBO

about 1.5 kilometres and intersections varied from 8 to 92 metres at a grade of approximately 1% copper.

A further hole, now in progress, was being drilled within the area covered by the previous four holes. This hole had to date intersected 169 metres of mineralisation starting from 348 metres below the surface. The upper 80 metres of the hole for which accurate assays were available contained 2.4% Cu, and from 16 to 18 metres in costs of the magnitude experienced since that time. Despite the losses which will be incurred on these contracts, the outcome of the six months to March 31, 1977, is expected in the absence of unfavourable circumstances to increase the profit for the year ending March 31, 1978.

PETROLEUM EXPLORATION: WMC believed that the time was appropriate for the Company to put more effort into petroleum exploration. Recent Government decisions to apply world parity prior to any new discoveries and to permit deduction of oil and gas exploration expenditure from tax assessments had established an improved economic basis for oil and gas exploration, although re-instatement of oil deductions formerly available to shareholders on monies actually expended on exploration would materially assist in financing such exploration.

ALUMINUM: WMC had a 20% shareholding in Alcoa of Australia Limited and received a dividend of A\$1.65 million during the year.

The fifth unit at the Pinjarra alumina refinery was completed, lifting Alcoa's total refining capacity to 1.5 million tonnes per year and alumina was being run in. Substantial stockpiles of semi-processed material had accumulated and it had been decided to re-treat these instead of processing additional newly mined material. This would materially assist in financing such exploration.

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IS/108

Further growth at Tricoville

A "FURTHER real increase in earnings" for the current year forecast for Tricoville, who make shirts and men's and women's fashionwear, by Mr. D. A. Jauchman, in his annual report.

Notwithstanding the general dismal economic outlook in the country he is confident that the group's "excellent" record will remain unbroken.

As known, Tricoville's pre-tax to July 15, 1976 was £127,379 (£198,011), a tax of £21,279 (£31,011). This is an unbroken profit record for the 16th year as a public company and fifteen years of existence turnover improved from £10.9m.

Referring to the difficult year and problems arising, the impact of sterling depreciation on imports, Mr. Jauchman said that the group had made serious efforts to obtain a higher proportion of production in the U.K. and has met some measure of success.

Unfortunately lack of production capacity of British manufacturers coupled with what unreliable delivery by certain suppliers is a restriction Tricoville's efforts to increase domestic product.

Jonathan Miller (Internal Audit) Tricoville has a 20% interest produced a 21.6% turnover increase of VAT (£1,000,000) in 1976. At the year end, Mr. H. L. Preedy, chairman, says trading at the beginning of the second half has already shown a big improvement.

At £21,600, turnover increased of VAT (£1,000,000) in 1976.

Mr. Preedy says sales in his retail branches, particularly those in covered shopping centres, were hit by the long hot summer, but results were in line with his warning of limited progress in his annual statement.

Measures to guarantee country's economic survival future prospects must be rigid control of the money supply, real reduction in public sector and a substantial increase in indirect taxation will be required to meet greater imbalances in these conditions by 1978.

Since becoming public, earnings per share have increased by about 230 per cent, the dividends.

Meeting Winchester E.C. January 11, at 12.30.

Shaw & Mar improves in first half

Pre-tax profit of manufacturers of wear Shaw and Mar, in inc from £234 to £24,188 in the year to September 30, 1976, an increase of 10.6% for the West Yorkshire based Shaw Engineering Group. Sales were higher at £2,370,000 (£2,295,000).

The net interim dividend is 8.016p per share absorbing VAT.

Shaw & Mar's turnover, profit and profit per share are up 17.6% per cent.

Mr. Preedy says that in his annual statement he should, however, expect this percentage to show some improvement in the current year.

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Argyle Secs.

Argyle Securities propose to increase interest rate by 1% on the 9% per cent convertible unsecured loan 1992-97 and 11% per cent convertible stock 1998-98.

The AGM has been convened for December 29, and will be adjourned to January 26, when the report will be submitted.

will

'Lofs' £2.96m. surplus on sale of ships

BOARD MEETINGS

The following companies have held their annual general meetings at the London Stock Exchange. Share meetings are usually held for the purpose of considering dividends. Official indications are not available.

INCLUDING a surplus on disposal of vessels of £2,963,000 (nil) and after a loss on shipwrecking of £57,000, against £320,000, group trading profit of London and Overseas Freighters amounted to £17,741,000 for the half year to September 30, 1976, compared with £20,058,000 for the same period last year.

Profit on shipbuilding was down from £2,328,000 to £1,445,000. The second half should see the completion of certain ships ordered in 1973 at fixed prices which did not encompass increases in costs of the magnitude experienced since that time. Despite the losses which will be incurred on these contracts, the outcome of the six months to March 31, 1977, is expected in the absence of unfavourable circumstances to increase the profit for the year ending March 31, 1978.

Trading profit, excluding Austin and Pickersgill, but including a dividend from that source of £2,000,000 (£500,000), was £3,709,000 (£2,600,000) and pre-tax profit £3,651,000 (£2,589,000).

For the year to March 31, 1976, group attributable profit was £2,050,938 (£19,157,117) and excluding A and P it was £1,673,037 (£5,321,018).

Half-year 1976

Interest 18

Pro-Capita profit 12

Taxation 4

Dividends 4

Attributable profit 11

Excluding VAT 12

Turnover 25 weeks

1975-76 15.7m

Trading profit 21,651,000

Investment income 2,002

Profit before taxation 21,853,000

Net profit 17,372

Minorities 12,371

Attributable 1,407

Excluding VAT 18,782,000

Turnover 25 weeks

1975-76 15.7m

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MINING NEWS

Utah's \$137m. Down-Under

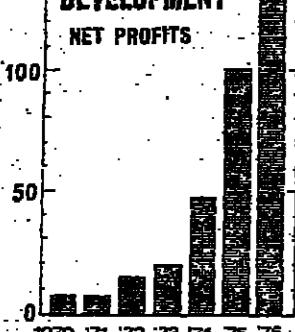
BY KENNETH MARSTON, MINING EDITOR

STRALIA'S "Mr. Big" in the ore shipments and the company's earnings league, Utah has been losing some \$1m. development, has lifted its earnings (500,000) in revenues. The partners for the year to October 31 at Mount Newman are BHP, \$125.9m. (500,000) from CSR, Amax, Selection Trust, C. 0.5m. in 1974-75. This is easily Itoh and Mitsui.

TONGKAH HOPES TO DO BETTER

With up concentrate production running ahead of last year's rate, and metal prices at a higher level, the Malaysian producer, Tongkah Harbour, in which London Tin Development's latest profit stemmed mainly from the

150 S.Aus. M UTAH DEVELOPMENT NET PROFITS



strategic alliance, has lifted its annual net profits to \$137m. (500,000) in revenues. The partners for the year to October 31 at Mount Newman are BHP, \$125.9m. (500,000) from CSR, Amax, Selection Trust, C. 0.5m. in 1974-75. This is easily Itoh and Mitsui.

The chairman, Mr. D. R. Mitchell, says in his annual statement that the monthly average production for the first four months of the current financial year is some 65 per cent. above the average of last year.

So far in the 1976-77 year monthly production has averaged 48.75 tonnes for a total of 195 tonnes. For the whole of last year the monthly average was 30.75 tonnes, but in the first four months of 1975-76 the running total was 189 tonnes, only 30 tonnes under this year.

The monthly average in 1975-76 was affected by a strike in Thailand which closed down the dredge for 11 weeks and involved the company in extra expenditure of \$1M. 78,897. But now, explains Mr. Mitchell, new agreements with the employees is in force until June, 1977.

Like last year, Tongkah will be keeping the dredge at the Bhuket Bay in Thailand instead of moving it to Bang Tao Bay for the non-monsoon season. The company considers, as it said at this time last year, that control of operations and security of plant can best be maintained at Bhuket Bay.

Tongkah Harbour, were 43p yesterday.

OF KALGURU & KALGOORLIE

Australias' North, Kalgoorlie, whose treatment plant handles nickel ore and whose Pinistion gold mine at Kalgoorlie has been placed on care and maintenance, has begun to operate on a marginally profitable basis. Furthermore, the chairman, Mr. John Jones, looks for a dramatic improvement in results for the current year to next June.

He pointed out at yesterday's meeting in Perth that the operating loss of \$250,000. (500,000) incurred in 1975-76 was mainly a result of the cost of closing down the gold operation. The latter has a potential for "significant" gold production when the economics of gold mining improve.

But Mr. Jones reckons that despite the "boogey of Australia's devaluation" the Australian bullion price is unlikely to rise enough in the near future to provide a satisfactory return on mining capital. North Kalgoorlie were 52p yesterday.

About 2,300 men at the mine have been laid off since the strike. In the first stages, ore with Gold Mines of Kalgoorlie at Mount Holland were shipped to meet shipments, but these supplies ran out nearly a fortnight ago. At present there are GMK merchant bank advisers to the miners at anchor awaiting

the outcome of the strike. The company is not connected with Gold Mines of Kalgoorlie whose shares slumped 16p to 31p in London yesterday. It will be recalled that in October the right to work. In neither case, however, have the employees' claims been met.

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The major order won by Dennis Motors is the largest in the company's history and is for 170-millimetre tankers for a Middle Eastern country. It was won in the face of strong international competition.

Included in the total is £600,000 of export orders for Stanhay (the agricultural engineering subsidiary of Hestair) on the eve of the Smithfield Show. This, too, represents a record intake.

Greaves Org. Receiver

The directors of the Greaves Organisation and Barclays Merchant Bank have appointed Christopher Morris of Touche Ross and Co. as receiver and manager of the company. This was enabled by the shareholders' resolution of the company to be preserved thus facilitating an orderly realisation of the group's assets.

FRATERNAL ESTATES

As the report for 1975 of Fraternal Estates has not yet been finalised, the AGM, convened for December 31, will be adjourned. It is hoped that the report will be issued before the end of this month, it is stated.

THIS ANNOUNCEMENT APPEARS AS A MATTER OF RECORD ONLY

A MEDIUM TERM EURO-DOLLAR LOAN

To

SHINTECH INC., HOUSTON, TEXAS

a wholly owned subsidiary of

SHIN-ETSU CHEMICAL CO. LTD., JAPAN

GUARANTEED BY

THE LONG-TERM CREDIT BANK OF JAPAN LIMITED

MANAGED BY

DOW BANKING CORPORATION NIPPON EUROPEAN BANK S.A.

PROVIDED BY

DOW BANKING CORPORATION MIDLAND & INTERNATIONAL BANKS LTD.

TORONTO-DOMINION BANK

Agent Bank: Dow Banking Corporation, London

If no adequate offer were received for the GMK share capital, the company should wind up.

OPTIMISM AT MANGULA

The Rhodesian copper producer, MTD (Mangula), a subsidiary of the South African Messina group, is expecting to maintain net profits this year at the 1974-75 level of \$10.15m. (500,000) provided there is an increase in the copper price. The deputy chairman, Mr. W. I. Spence, is confident about this possibility.

I believe the copper price trend is upward, and that the present interruption to this upward trend should not last more than a few months," he states in the London Metal Exchange price for cash copper was 57.65c.

Technically, the outlook for Mangula is satisfactory, says Mr. Spence. The Silverside mine is expected to go out of production this year as ore reserves are exhausted, but work is well advanced on doubling the concentrator capacity of Norak to 42,000t a month and on boosting Mangula's concentrator capacity by 14 per cent. Mangula were 80p yesterday.

MINING BRIEFS

KILLINHILL TIN-TIN, the firm for AMGLO AMERICAN CORPORATION incorporated in the Republic of Senegal, has decided to sell its 50 per cent. interest in the mineral joint venture, Alumanius, in Cornwall, England. Argo Caribean Group, one of the major steel producers in Europe. Since 1977, Baxter has been Argo's sales agent in the U.K. Discussions between the two groups have been going on for some time.

Hoogovens intends to maintain and further develop the business of Baxter. Assurances have been given to the present management and staff of Baxter. It is intended that the management representatives from Hoogovens will be invited to join the Baxter Board.

Several other Continental steelmakers have established or acquired stockholding facilities in the U.K. Two years ago, for example, Niederrhein's, the German

Colliery, 30.57 per cent. of Balfour

Colliery

INTERNATIONAL FINANCIAL AND COMPANY NEWS

Confidence at Schering over 1976 earnings

BY GUY HAWTHORN

SCHERING, the West Berlin-based chemicals and pharmaceuticals concern, is confidently predicting an improvement in the first six months. Production capacity was, on average, more fully utilised than in the same period of the previous year. Produced and raw materials prices remained, by and large, unchanged from 1975.

The current year has been one of recovery for the West German chemicals industry. Admittedly, important sectors, notably fibres, remain depressed, while agricultural products such as fertilisers have experienced weak demand.

But virtually all of the Federal Republic's most important chemical concerns have felt the upturn and all three of the majors—Hoechst, Bayer and BASF—have made particularly strong recoveries.

SCHERING's turnover figures have not shown the same growth rate as the majors. Group sales for the first three-quarters totalled DM1.54bn. (£357.2m.), some 14.9 per cent. up on the DM1.34bn. of the same period of 1975. The parent concern, Schering AG, saw turnover rise by 8.3 per cent. from DM357.6m. to DM394m. (£38.4m.).

Thus, Schering's turnover—on the surface of things at least—showed a far slower rate of improvement than the majors whose group sales went up by between about 15 per cent. and close on 22 per cent. and whose parent concern turnovers rose by between about 14 per cent. and just over 9.8 per cent. and home sales actually decreased.

Capital investment had not reached planned levels as a result of changes in individual large-scale projects. For the total year, it was expected to reach DM165m. compared with DM191m. in 1975.

Linde appears to be doing far better this year than it expected. The Wiesbaden-based engineering, construction and cold storage group, which started the year in a pessimistic mood, has reported a marked increase in both sales and orders.

Group turnover in the first three quarters of the year has risen 11.9 per cent. from DM939.6m. in the comparable period of 1975 to DM1.05bn. (£244.1m.). At the same time the inflow of orders is up 19.6 per cent. at just under DM1.68bn. (F466.1m.).

In April this year, the group warned that it had not yet felt the effects of the economic upturn and was clearly sceptical about its prospects. A rise in profits or an increase in exports was essential in the opinion of the Executive Board.

At the nine month point, it seems clear that the group has done better than it expected. Domestic turnover rose by 12.5 per cent. to DM723.2m., while exports went up 10 per cent. to DM328m. Domestic orders declined by DM92.8m. to Reuter

Banks cast Reksten \$100m. lifeline

BY MICHAEL BLANDEN

LOANS of \$100m. have been arranged by a syndicate of banks for the troubled Hilmar Reksten.

The loans are being made under guarantee from the Norwegian Guarantee Institute for Ships and Drilling Vessels under the arrangements announced last June to enable the Reksten group to stay in business. They are the first of this kind made under the guarantee.

The loans have been arranged by Hambros Bank, Bank of America and Canadian Imperial Bank of Commerce, and are being provided by a group of 20 international banks. The terms of the loans are not being disclosed, but it is understood they include a repayment schedule

geared to repayment by the end of 1978.

The terms of the guarantees provided by the Norwegian Institute are thought to be based on shipping loans, covered by a full lay-up of the Reksten fleet until the end of 1979. However, the bank had agreed to reduce its secured claims on ships subject to guarantees by the Norwegian State-backed Guarantee Institute.

It is reported that the present performance is considerably better, at its worst in the past two years, only 8 per cent. of the tanker tonnage was actually trading, but it is understood they

have been set up to take over the end of 1979.

Because of the guaranteed trading, now around 40 per cent. is trading.

Under the reorganisation scheme, the major creditors of Reksten, Hambros and the Aker

shipbuilding group, agreed to be able to recover the investment when the tanker market

improved, it is understood they will be able to treat the ships covered as on-going business assets. It is

under the scheme that the loans have been arranged under the scheme it is

arranged under the scheme

WALL STREET + OVERSEAS MARKETS

+ FOREIGN EXCHANGES

Up 11 on economic hopes

BY OUR WALL STREET CORRESPONDENT

SHARP WIDESPREAD gains developed on Wall Street to-day, partly reflecting anticipation of economic stimulus by President-elect Carter's Administration when it takes over in January. The Dow Jones Industrial Average moved up a further 1.22 to 981.77, and the NYSE All Common Index advanced another 44 cents to 355.64, while rises led by more than a three-to-one majority. Trading volume expanded 2.1m. shares to 24.53m. Carter's Budget Director Desi- nate, Bert Lance, said Carter would almost certainly recommend a tax cut, although Carter said he still hasn't made up his mind.

The Stock Market was also helped by a report that U.S.

"We believe we have passed the low point of incoming orders." Drugs recovered some of their recent losses. Bristol-Myers gained \$1.10 to 363.25, Eli Lilly \$1.21, Smithkline \$1.15 to 374.15, Upjohn \$1.10 to 326.15 and Merck \$2 to 367.

U.S. Steel put on \$1.10 to 348.50 and Bethlehem \$2 to 339.50.

Coppers were weak on bearish comment.

OTHER MARKETS

MONDAYS ACTIVE STOCKS

Canada up again

Canadian Stock Markets gained further ground in light trading yesterday. Only Papers, off 0.42 to 104.07 on index, moved against the general trend.

The Industrial Share Index rose 1.20 to 105.20, while 51.10 to 206.80.

Handy & Harman \$1.20 to 193.100, Texaco \$1.00 to 180.500, Occidental Petroleum \$1.10 to 165.000, and Southern Co. \$1.10 to 16.000.

capital spending rose in the third quarter to \$122.35bn, from \$118.2bn, in the second quarter. In addition, some leading companies announced sharp increases in their own planned spending for 1977—most notably Bethlehem Steel, which plans a 50 per cent rise in its 1977 outlays and said

Poclain, while Hotels declined, led down by Jacques Borel.

Stores and Electricals were mixed, while Metals gained.

Americans and Dutch shares were mixed, Germans, Oils and Gold rose, while Coppers were irregular.

BRUSSELS — Mixed in moderately active trading.

Steel finished irregular.

Electricals and Utilities tended higher, while Non-Ferrous Metals, were easier.

Bonds rose B.Frs 20 to 2,070,

it expects higher 1976 profits

hope to pay an increased

dividend.

Most U.S. stocks were modestly

higher, and Germans improved,

but the French and Dutch sectors

were lower. South African Gold

Mines rose.

AMSTERDAM — Substantially lower in brisk trading.

Philips sold Fls 30 to 25.5—it

expects more workforce cuts

next year.

Banks and Insurances declined,

while Irregulars developed

Transportations, Holland-American, Linen, Housing, financials.

VIENNA — Generally steady.

Constructions continued narrowly mixed.

MILAN — Flat up Lts 64 to 1,264,

led another sharp upward session

with gains averaging 3 per cent

in active trading.

Bonds were steadier.

COPENHAGEN — Mixed with

hopes moderate. Communications

and Insurance higher. Com-

modities mixed. Shipping higher.

Industries mixed to slightly

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modities mixed. Shipping higher.

Industries mixed to slightly

lower.

AMSTERDAM — Substantially

lower in brisk trading.

Philips sold Fls 30 to 25.5—it

expects more workforce cuts

next year.

Banks and Insurances declined,

while Irregulars developed

Transportations, Holland-American, Linen, Housing, financials.

VIENNA — Generally steady.

Constructions continued narrowly

mixed.

MILAN — Flat up Lts 64 to 1,264,

led another sharp upward session

with gains averaging

STOCK EXCHANGE REPORT

Gilt-edged good and equities make fresh progress

Index up 4.8 at 310.1—Golds move ahead

Account Dealing Dates

OPTION

First Declares Last Account Dealings (Gains) Dealings Day Nov. 15 Nov. 25 Nov. 23 Dec. 7 Nov. 29 Dec. 9 Dec. 10 Dec. 21 Dec. 13 Dec. 30 Dec. 31 Jan. 12

"Now time" dealings may take place from 7.30 a.m. two business days earlier.

Stock markets enjoyed a generally firm trading session yesterday. British Funds claimed most of the interest, activity being stimulated by news that the long tap stock, Treasury 151 per cent., 1996, had been exhausted. A lively trade in this area of the market left prices with rises extending to 4%. Similar improvements were recorded in equities, while weak gains were seen in short-dated issues: the Government Securities index rose 0.29 to 58.37.

Several surveys forecasting a slow-down in the pace of economic recovery, prompted a dull opening in leading equities, but the virtual absence of selling and a firm lead from the gilt-edged market brought a turnaround in sentiment and prices gradually moved higher for the rest of the session. Down 1.3 at 10 a.m., the F.T. 30-share index recovered to close at its best of the day with a net rise of 4.8 at 310.1. Once again, the level of business left much to be desired: official markings totalled only 3,824.

Long "tap" exhausted

Elsewhere, the day was enlivened by several bid announcements and speculative demand for other likely take-over candidates. Press comment also prompted the occasional firm spot, while the fairly general improvement was shown in the 7.2 ratio of rises over falls in F.T.-quoted Industries.

Prudential in Insurances, rose 6 to 99.5, buyers' attention being

the exhaustion of the long "tap," Treasury 151 per cent., 1996, provided the main impetus in Gilt-edged. Prior to the news the tone had been slightly firmer with gains limited to 1%, but in ensuing lively trading these were extended to 1% with the exception of the "tap," at 98.4.

The overall picture of business was the best for the past two weeks and the short "tap," Exchequer 13 per cent., 1930, up 1% at 86.2, could become operative to-day if the firmness holds. Opinions were divided as to the early replacement of the long "tap."

Business in investment currency was small and the premium hovered either side of 119 per cent. before closing at that rate. This was marginally better than Friday's level. Yesterday's S.E. conversion factor was 0.7170 (0.7180).

Banks quietly firm

Quietly firm conditions prevailed in the big four Banks. Barclays edged forward 5 to 218p and with Lloyds and National Westminster improving to 178p and 185p hardened 2 to 218p.

Standard Chartered, however, receded 6 to 245p in front of to-day's interim results. Dull last week on the devaluation, Australian banks rallied modestly with Commercial Bank of Australia up to 255p.

Country and District Properties, up 2 to 389p, and Birstein Estate Property gained 11 to 451, after 3 on a F.T. suggestion that Hanbury (unlisted at 120p) will

soon announce a reorganisation of its property interests in the interim figures, while other firm spots included Maguire and Somers, a higher 344p. Of Banks but G. R. Dawes fell 3 to 60p.

Prudential in Insurances, rose 6 to 99.5, buyers' attention being

drawn by Press mention. ICI moved up 4 more to 292p. Elsewhere in Chemicals, Fisons preliminary figures are due on

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Interest in Buildings was selective and limited. Barchwick stood still with a rise to 139p in Vickers, but, while others leading Engineers scored similar gains, including Hawker, at 400p, and Taylor Woodrow, 212p, put on 5 and 6 respectively. In Shoes, Wearhanded, penny to 119p, in response to increased profits and dividend.

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Callaghan, Kissinger meet on Rhodesia this week

BY BRIDGET BLOOM, AFRICA CORRESPONDENT

DR. HENRY KISSINGER, the U.S. Secretary of State, is to have any chance of achieving his aims. Mr. Ivor Richard, the conference chairman, returned from Geneva last night and will spend the day in consultation with Mr. Crosland, the Foreign Secretary, on the key question of Britain's role in a Rhodesian settlement.

The meeting set for Friday after Dr. Kissinger's return from the NATO Ministers' meeting in Brussels will be the culmination of a series of discussions principally designed to define the precise role Britain should play in the Geneva conference on Rhodesia, and in a transitional Government of the country.

The conference is in its sixth week, with only 10 full working days to go before the date set for its formal conclusion, and Britain's role is seen as increasingly crucial if the conference

between the Africans and the white Rhodesians is as wide as ever, revealing the critical role that Britain may now have to play if there is to be a compromise.

In the view of observers not only in Geneva but in London and Washington, Britain is faced with the choice of declaring to the conference the full extent of the role she is prepared to play in the interim Government, in the hope that this will make compromise possible, or risking a conference breakdown.

In a written statement to the Commons last week Mr. Anthony Crosland went further than ever before in declaring that the Government was prepared to play a "direct role in the transitional Government if it is the general view that this would be helpful."

Cabinet undecided on how spending axe should fall

BY RICHARD EVANS AND PETER RIDDELL

THE CABINET yesterday started discussing the broad areas of public expenditure where cuts should be made after reaching general agreement at the end of last week on the size of the reduction in the public sector borrowing requirement in 1977-78.

Assuming sufficient support for AWACS in the rest of Nato, the decision will mean the dropping of the British alternative airborne early-warning system, based on a development of the Hawker Siddeley Nimrod anti-submarine aircraft.

Although the precise division of the costs still depends on the number of participants in the AWACS programme, the British contribution is likely to be about \$450m, of which it will receive about one-quarter back in terms of defence contracts.

Since the money for an early-warning system is already in the British defence budget, it is hoped that a commitment to AWACS could go ahead without being affected by cuts in Government expenditure. The funds would simply be transferred from Nimrod to AWACS.

Optimum
One of the main outstanding questions about AWACS is whether or not the French will participate. If they do, the number of aircraft involved is likely to go up and the financial contribution of the other participants to come down.

It is understood that the French will make their decision known in the next two days while the Defence Ministers are meeting. (The French do not take part in such sessions.)

The optimum number of the Boeing E-3A aircraft required for AWACS is still put at 32, if Nato is to have a completely comprehensive radar cover against low-flying missile or aircraft attack.

Most of the Alliance's defence experts would gladly settle for 27, and it is admitted that the minimum figure for effective cover is 22. Anything below that would mean extensive gaps in radar coverage of Europe.

Much of the discussion in the next two days will be about how to achieve the 27 target. This will have to be done by bringing in as many of the smaller members of the Alliance as possible.

Jobs loss
The formal decision will probably take place on Wednesday since Mr. Fred Mulley, the British Defence Secretary, will make known of tomorrow's proceedings, because the British Cabinet meeting

Michael Donne, Defence Correspondent, writes: Abandonment of the British Nimrod for the future airborne early-warning role in Nato (it would continue to be used in the anti-submarine role) would mean the loss of a substantial number of jobs in Hawker Siddeley Aviation.

Work on the Nimrod for the airborne early-warning role has been continued as an insurance measure against any Nato rejection of the AWACS. Acceptance of AWACS by Nato would be bound to result in cancellation of Nimrod, since Britain could not afford both.

Cruise bookings top 2,600

A RECORD number of people will seek the sun in the Atlantic Isles in the cruise ship Monte Granada.

The ship sails to-day from Liverpool and with five months of the season left passenger bookings have topped 2,600 — the best since the sailings started from Liverpool in 1959.

Mr. Geoff Jones, managing director of Yeoward Brothers, shipping agents, said that they expected 3,000 passengers would be carried this season.

presented by some "moderate" opponents of "deflation" as a compromise, it is clear the broad orders of magnitude approved do not differ significantly from those in the paper presented a fortnight ago by Mr. Denis Healey, the Chancellor of the Exchequer.

The details of the package are still far from settled and there is opposition from Mr. Anthony Wedgwood Benn, the Energy Secretary, to the proposed sale of part of the Government's holding in British Petroleum. It is now known that the shares involved are between 17 and 20 per cent of the company's equity from the former Burnrah state now controlled by the Bank of England.

Benefits
The proposal to change the method of uprating certain social security benefits — notably short-term ones such as unemployment pay — is also controversial. The Treasury has for some time been studying an idea to index-link the benefits to average earnings rather than the TUC, the Party Conference, and the NEC.

The Treasury is also known to have been examining proposals for reducing housing subsidies which would increase council house rents.

It emerged yesterday that members of the IMF team under Mr. Alan Whittemore would remain in London for the time being until the Cabinet discussions are complete.

• The Tribune Group of Labour MPs last night warned the Government that it could not rely on their support if any further cuts in public expenditure now being demanded by the IMF were agreed by the Cabinet.

They also expressed total opposition to any disposal of publicly owned assets, such as British Petroleum shares, on the grounds that this could make no meaningful contribution to strengthening the economy.

The group recognised the Government was in an extremely difficult situation, but this could have been avoided, it claimed, if Ministers had adopted the alternative policies advocated by the Left-wing but by the TUC, the Party Conference, and the NEC.

Mr. Whittemore, the Treasury's chief economic adviser, said he hoped the working party would find a practical way of introducing a wealth tax within the lifetime of the present Government.

Government coolness to the idea of a wealth tax was based on preliminary examinations which indicated that it would be very difficult to draw up a feasible scheme. These problems were reiterated again yesterday by Mr. Denis Healey, the Chancellor, who also came in for a predictably rough ride for his economic policies from some of the Left-wing Labour Party members on the liaison committee.

In the vanguard of this criticism were Mr. Norman Atkinson and Mrs. Barbara Castle, who accused the Chancellor of complacency and of seeking to worsen the unemployment situation.

Mr. Jones also warned the Government against linking unemployment and social security benefits to wages in the future instead of prices as at present. He was assured by Mr. James Callaghan, the Prime Minister, that no decisions had been taken on this matter as yet.

Much of yesterday's meeting was spent discussing the need to maintain the Government's industrial strategy and according to Mr. Murray everyone present agreed on that.

Weather
U.K. TO-DAY
SHOWERS, sunny intervals.
Snow in places.
All parts of England and Wales,
Channel Is., Is. of Man, all parts
Scotland, Orkney, Shetland.

Sunny intervals; showers,
perhaps snow. Max. 48°C
(38-43°F).

Outlook: Wintry showers,
sunny intervals. Night frost.
Lighting-up: London 16.23,
Manchester 16.21, Glasgow 16.14,
Belfast 16.29.

BUSINESS CENTRES

Yester-day
mid-day
°C °F
Aberdeen 21 59 Madrid 14 57
Belfast 20 68 Melbourne 25 77
Birmingham 15 59 Milan 21 70
Bristol 21 69 Montreal 15 59
Cardiff 20 68 Munich 15 59
Birmingham 15 59 Newcastle 15 59
Bristol 21 69 Oslo 15 59
Budapest 15 59 Paris 15 59
B. Aires 20 68 Prague 15 59
Copenhagen 20 68 Rio de J. 15 59
Edinburgh 20 68 Rome 15 59
Edinburgh 20 68 Stockholm 15 59
Frankfurt 15 59 Stuttgart 15 59
Glasgow 15 59 Tel Aviv 15 59
Edinburgh 20 68 Tokyo 15 59
Hong Kong 15 59 Toron-to 15 59
London 15 59 Warsaw 15 59
London 15 59 Zurich 15 59
London 15 59

HOLIDAY RESORTS

Yester-day
mid-day
°C °F
Alacard 13 55 Jersey 18 60
Aigues 12 55 Las Palmas 19 68
Almeria 13 55 Lloret de Mar 18 68
Barcelona 13 55 Majorca 18 68
Bilbao 13 55 Palma 18 68
Bordeaux 13 55 Rio de J. 15 59
Boulogne 13 55 Santorini 18 68
Casablanca 13 55 Nairobi 18 68
Cagliari 13 55 Naples 18 68
Cork 13 55 Nice 18 68
Dobrovnik 13 55 Nicosia 18 68
Faro 17 63 Oporto 14 57
Funchal 13 55 Palma 18 68
Funchal 13 55 Santorini 18 68
Gibraltar 17 63 Tenerife 14 57
Gibraltar 17 63 Tenerife 14 57
Gibraltar 17 63 Tenerife 14 57
Inverness 12 55 Valencia 18 68
Istanbul 13 55 Varna 18 68

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